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The Modern Conception of Baroque Architecture

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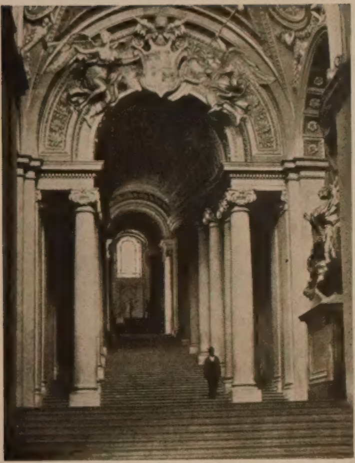
FROM A LECTURE GIVEN AT THE METROPOLITAN MUSEUM OF ART, NEW YORK


Rome, Vatican, Scala Regia (1663–1666), by Lorenzo Bernini.

DURING recent years there has been a marked change, almost a revolution, in the attitude of not a few toward Baroque architecture. Indeed, it is but a further step toward a complete understanding and appreciation of Renaissance and Post-Renaissance works.

Not only Ruskin's "foul torrent of the Renaissance" theory, but also the presentation of the Renaissance by historians whose judgment was distorted by Victorian prejudice, has prevented many from acquiring a sympathetic appreciation of numerous impressive and delightful buildings. That the style had serious weaknesses cannot be denied, but that its defects should so long have obscured its many fine qualities is difficult to understand.

The origin of the term Baroque need not detain us, so long as etymologists, as well as historians, are unable to agree as to whether the word was derived from the Latin *verruca*, "a wart," which, in its corrupted form, *barocca*, was applied by jewellers to a misshapen pearl, or from the Greek *βάρος*, signifying weight, heaviness, or *παρᾶ χοπος*, that corresponds to mad, delirious. The word Barocco appears in seventeenth-century Italian as a philosophical term, and a century later it passed into the vocabulary of art with this definition: "A pretentious and eccentric style that came into vogue at the end of the sixteenth and lasted throughout the eighteenth century"; or, "A capricious style prevalent in Italy from 1580 to about 1760"; or again, "The style which for two centuries heaped together all the products of the three kingdoms of nature."

In approaching the study of Baroque architecture, as of any other style, it is of much importance that we assume a sympathetic rather than an antagonistic attitude, to attempt to visualize the customs and costumes of the time and to understand the ideals of the people. Professor Corrado Ricci has well said in his book upon Baroque architecture and sculpture: "Nor must the historian overlook the psychological relation between Baroque Art and the society that produced it, a society of conflicting faults and virtues, of heroism and debasement, of scientific initiative and of superstition; full, in a word, of contrasts and contradictions, of bombast and exaggeration, but sustained by the conviction that there was still much beauty to discover in the domain of art, much truth in that of science, much goodness in that of philosophy."

What are the characteristics of Baroque architecture? Some will reply: "Bigness of scale, barrenness of detail." Others will say: "Overelaboration, incongruous combinations of decorative elements, and a restlessness or intentional feeling of movement in composition." Again, we are told that pure classic forms were adopted by one group of architects and grotesque elements by another, and that the one group, by its austerity and pedantry, drove the other to the extreme; or that the license of one school disgusted and confirmed the purism of the other.

It is, in a measure, helpful to divide the late Renaissance or Post-Renaissance into these two groups, but the classification will not strictly hold, for neither of the great purists, Palladio nor Vignola, was free from the "Baroque corruption," and Bernini, one of the most extreme offenders, from the standpoint of purism, produced the most austere and classic work of the time, viz., the colonnade in front of St. Peter's.

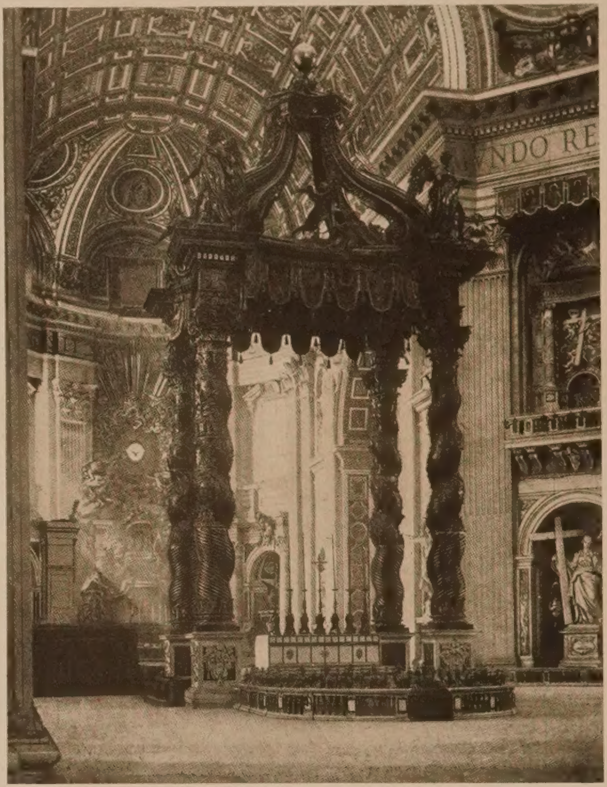
It is best, perhaps, to think of Baroque architecture as that of a period in Italy, from about 1580 to 1760, and to attempt to appreciate its merits and defects by the examination of some of its most representative monuments. There are certain characteristics common to practically all works, whether austere or elaborate. Bigness of scale is almost universal, amplitude of plan, and a general breadth of treatment, even though details may be overwrought or of more than questionable taste. A disregard of structural propriety has been urged against the style, but the works were generally mechanically stable; the designers were contented with this and concerned themselves especially with other problems.

As with most architectural styles, the origin of Baroque architecture is difficult to discover. Compositions incorporating most, if not all, of the elements of Baroque are to be found in the declining Greek art, as in the great Altar of Zeus at Pergamus. In the temples at Baalbec and in Diocletian's Palace at Spalato, as well as in the so-called Temple of Neptune at Rome, one sees again bigness of scale, curious, sometimes grotesque, details, and something of the bombast and ostentation that are frequently cited as peculiar to the Baroque.

Some historians of the Italian Renaissance have called attention to the fact that the earliest Renaissance artists were often influenced by the later and debased classic works. At any rate we have even in such charming designs as the Prison at Brescia and the Porta Capuana at Naples elements that reappear in seventeenth-century art.

A notable work of the sixteenth century, cited by some writers as the first evidence of the Baroque, is the pedestal of Cellini's Perseus in the Loggia dei Lanzi at Florence. Unquestionably we have here all the riot of imagination and disregard of academic rules, coupled with a splendid sense of decorative propriety, that belong to Baroque art.

In an attempt to fasten the credit or discredit of the origin of the "Baroque corruption" upon one man, Michael Angelo has been cited as responsible. And beyond doubt one can see in much of the work of that great creative artist the incarnation of the Baroque ideal. In the Sistine Chapel, with its painted architecture and splendid contorted figures, in the New Sacristy and the vestibule of the Laurentian Library at Florence, in the Porta Pia, the Capitoline Buildings, and the Dome of St. Peter's at Rome, one sees the struggle for varied expression of a great soul.


Rome, St. Peter's, Tabernacle (1627–1632). Design by Lorenzo Bernini.

In the works of his followers the ideal of the master may be obscured but it does not die. In Maderna's work on St. Peter's, both external and internal, along with the forced scale, the distorted and questionable detail, and the garishness of parts, the spirit is preserved, and we are brought, at least figuratively, to our knees in admiration of the unity and power that can so affect the mind of man.

We may regret Borromini's restoration of St. John Lateran, but in the façade of Sta. Agnese in the Piazza Navona he has produced a seventeenth-century masterpiece.

In Fuga's façade of Sta. Maria Maggiore one appreciates the restrained expression of rhythmic movement, the legitimacy of which may be questioned, but the splendid result of its daring application here is difficult to condemn. One wonders, indeed, why this idea of rhythmic movement that appears as such a commendable feature in the façades of mediæval churches should, in Baroque architecture, be so sweepingly denounced by unsympathetic critics.

How can one briefly arrive at a comprehension of the genius and estimate the works of Bernini?—a man of tremendous power and versatility, incorporating in his works the splendors and conceits of his time, producing an unbelievable number of projects of a high order, and again stooping to tricks that, with all their cleverness, are hard to justify.

His tabernacle in St. Peter's has been ruthlessly condemned and, on the other hand, commended by frequent more or less direct imitation. Whatever its faults, I doubt if its critics could easily conceive a more fitting climax for the gorgeousness and power of this great interior.

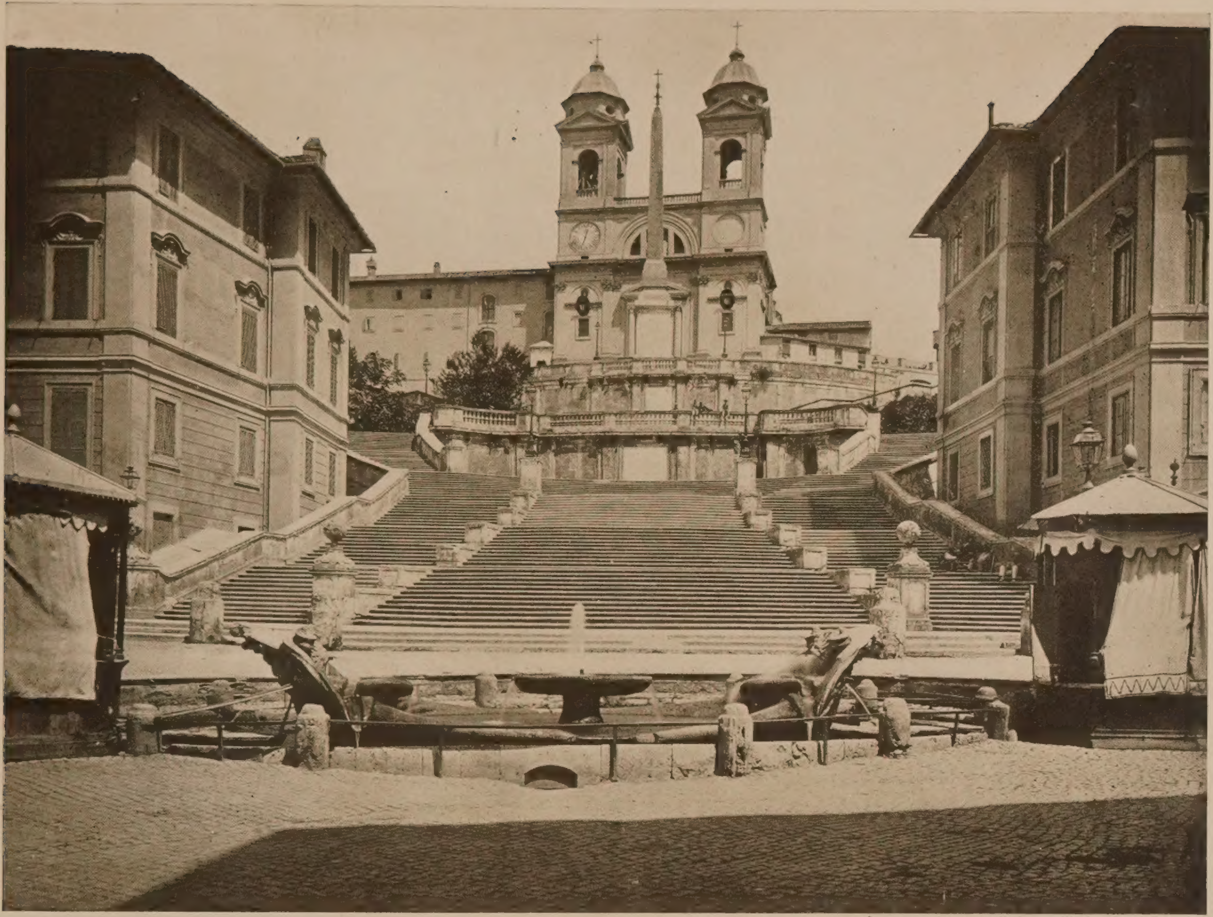
Behind stands the Chair of St. Peter, with its too facile handling and all the startling paraphernalia of Counter-Reformation art.

His monument of Pope Urban VIII is a strange combination of noble restraint and ambitious striving for effect. In spite of the richness of the dark marble, the figure of the Pope in the attitude of pronouncing benediction is dignified and appropriate. Beneath, the skeleton climbing out of the sarcophagus, displaying on a banner the name and title of the deceased Pontiff, introduces an unpleasant note; while the beautiful sensuous figures of Virtues on either side illustrate both the taste of the time and Bernini's too facile handling of the female form with marble draperies.

The colonnade enclosing the *piazza* in front of St. Peter's is unquestionably Bernini's greatest architectural work. Its gigantic simplicity and vast dimensions strike one immediately, but a closer study reveals subtleties of detail—as the increase of the diameter of the columns in each range from the centre outward—that suggest the infinite refinements of the Parthenon. Above the entablature are sixty-two energetic statues, so characteristic of the period, and we are assured that twenty-two of them are due to the master himself.

Alongside the *piazza* is another great work of Bernini, viz., the *Scala Regia*, or Royal Staircase. It forms the monumental approach from the *piazza* to the Vatican, and is a clever treatment of a perfectly straight corridor with a gentle slope and diminishing width. Bernini utilized this latter feature to increase the perspective effect, and in the middle he introduced a small landing where the necessary light was obtained. The coupled columns and the barrel-vaulted ceiling are ingeniously arranged to prevent any effect of distortion. As with some of Michael Angelo's works, this staircase led to absurd and theatrical effects in compositions erected by Bernini's imitators.

Any consideration of Baroque works at Rome must include the great Church of the Jesuits by Vignola and della Porta. The front, by the latter artist, exhibits with restraint the features that characterize many later church



Rome, S. Trinita del Monte.

façades, both in Italy and the North. It is a screen, not entirely related to the structure behind, and here treated soberly as compared with most of its successors. The interior is magnificent, broad and spacious, evidently adapted for preaching to a large congregation. It is, perhaps, the finest product of the spirit of reform in the Church, the so-called Counter-Reformation, espoused and promulgated so enthusiastically by the Jesuit Order.

Among the multitude of domes based more or less directly upon that of St. Peter, the finest is, perhaps, that of San Carlo al Corso, built early in the seventeenth century.

Many of the finest palaces of Rome belong to the Baroque period and, in general, they maintain the quiet dignity of the early sixteenth-century works, although amplitude and convenience of plan are more in evidence, and fine staircases, charming vistas, and too clever perspective effects are frequently introduced. In marked contrast with these moderate designs is the riotous, fanciful detail of the Palazzo Zuccari, built as early as 1586, and designed by its owner, a sculptor, Federico Zuccari. The doorway is surmounted by a gigantic grotesque figure that is neither fish, flesh, nor fowl, and the detail of a window upon the front is equally startling.

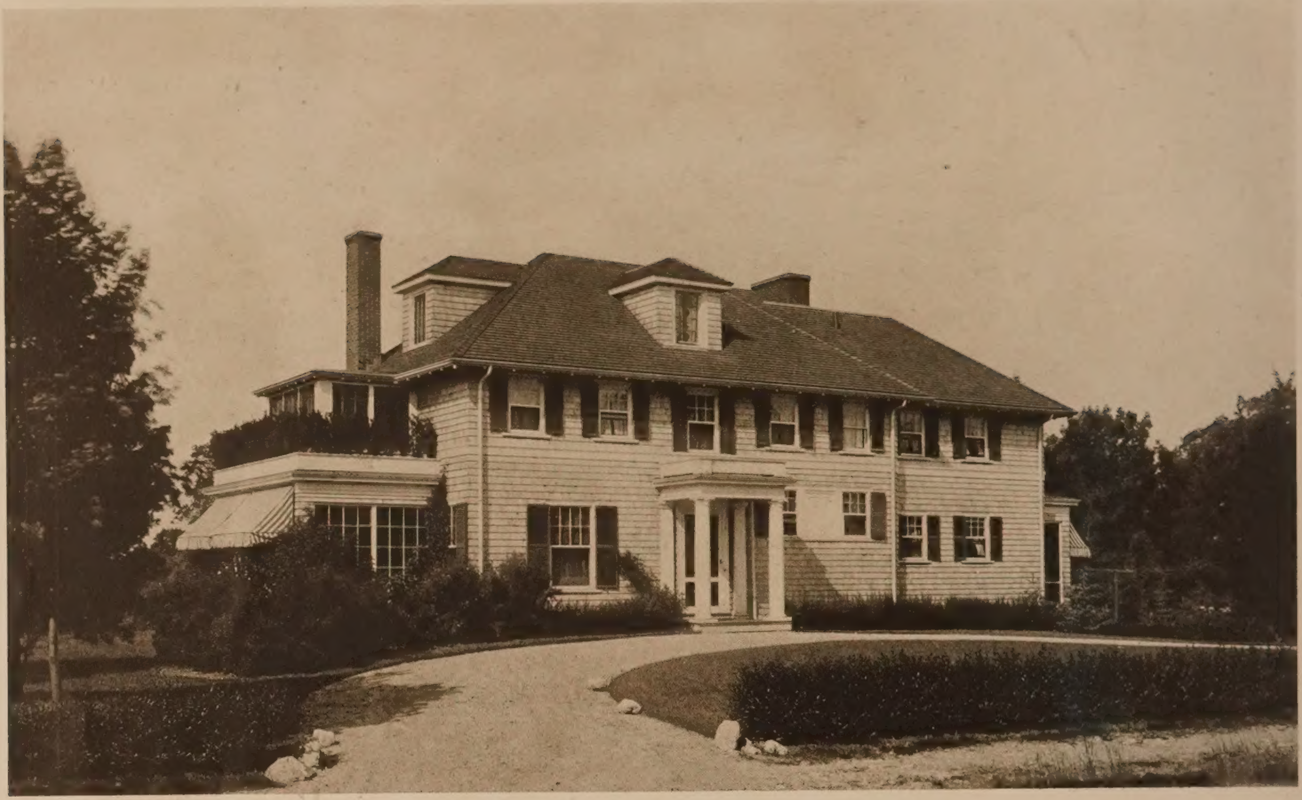
While sepulchral monuments were assuming the form of personal memorials, often of a triumphal order, the morbid and horrible representation of Death or of the dead, that appears in late Gothic works, persisted, with few of the relieving features of that earlier art. The Gisleni Monument in S. M. del Popolo may be an extreme example, but is nevertheless fairly typical.

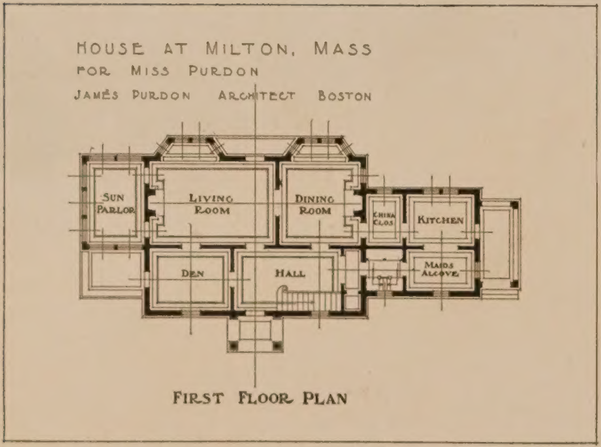
A great impetus was given to the formal and artistic treatment of streets and public squares, and although we may not accept the assertion that town-planning originated with the Baroque movement, far more was accomplished during this period than formerly. We have already seen the square in front of St. Peter's; another fine work of the sort is the *Piazza del Popolo* where the two churches of St. Mary serve so admirably to beautify the square and as terminations of the blocks enclosed by radiating streets, and not far distant is the *Piazza di Spagna* with the magnificent Spanish Staircase rising from Bernini's fountain, in the shape of a boat, to the Church of the Trinity on the Pincian Hill.

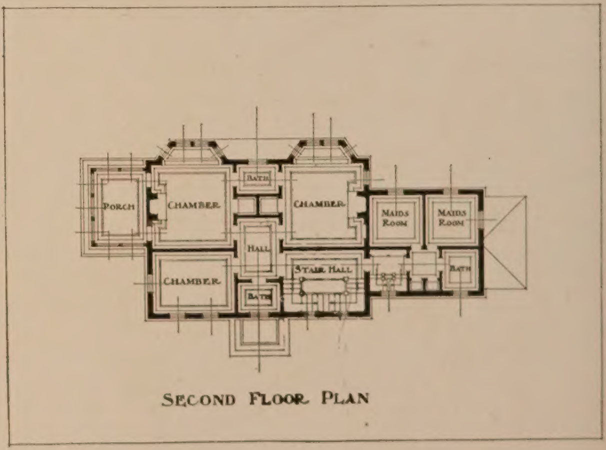
Fountains almost innumerable were erected and are unsurpassed as examples of the Baroque expression; the culmination at Rome is, of course, the Fountain of Trevi.

Space will permit but a passing reference to the Italian villas, but one must recall that most of the important works of this sort belong to the Baroque period and are spontaneous expressions of the spirit of the style. The Casino of the Pope in the Vatican gardens is a charming work by the same artist as the Villa d'Este at Tivoli. The cascade of the Villa Torlonia at Frascati is but a suggestion of the wonderful garden architecture there. The Villa Lante at Banaia is another delightful design. The loggia of the Palazzo Ginnetti at Veletri illustrates the appropriate architectural treatment with plastic detail, so frequently found in the casinos, and the interior of the stables of the Villa Morosini at Altavilla indicates the magnificence and luxury afforded beast as well as man at this time of sumptuous living.

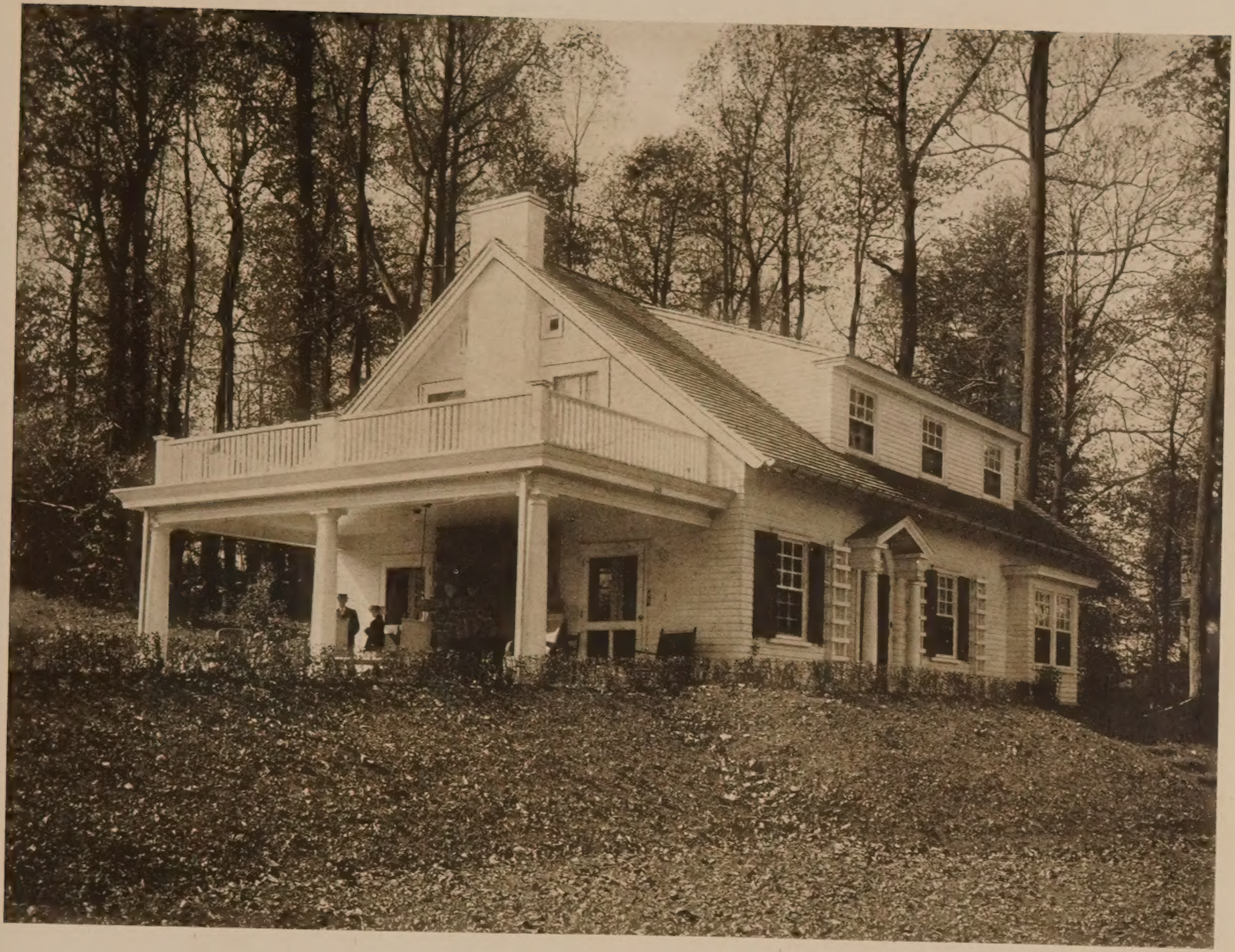
(To be concluded.)

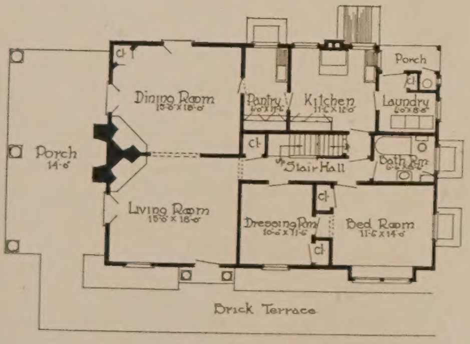




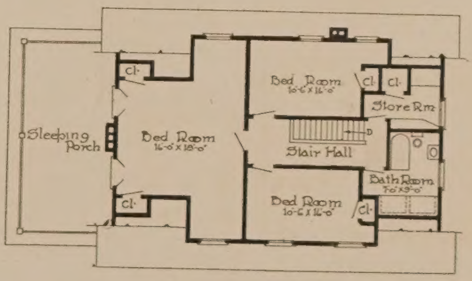


HOUSE, MISS PURDON, MILTON, MASS. James Purdon, Architect.





FIRST FLOOR PLAN



SECOND FLOOR PLAN

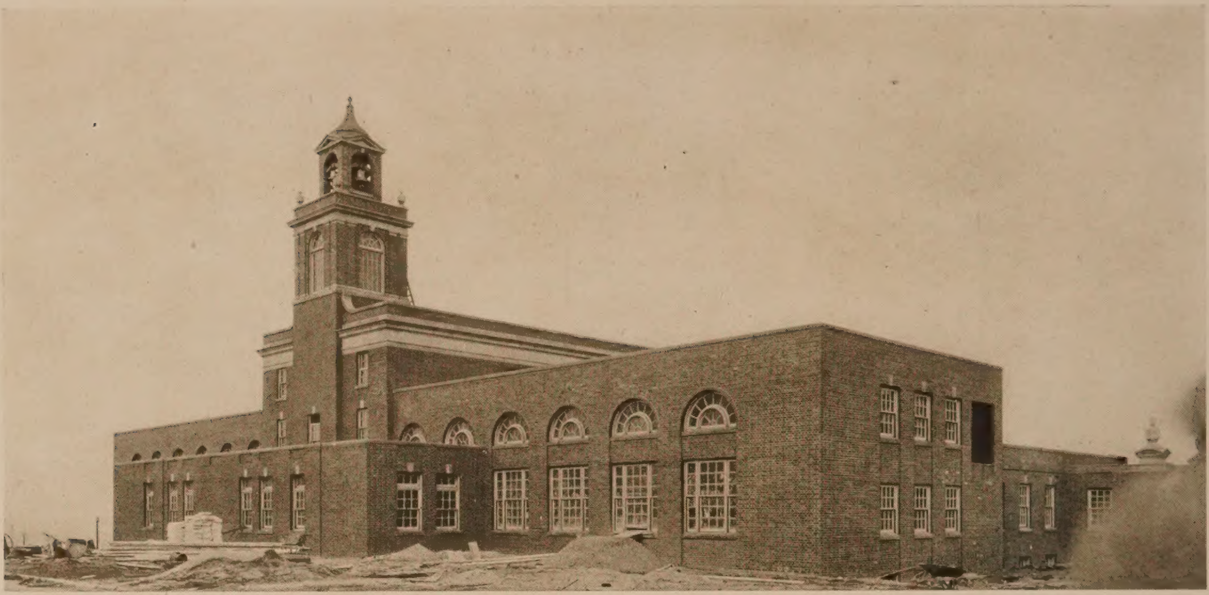
HOUSE, F. A. CANIZARES, WAYNE, PA.

Boyd, Abel & Gugert, Architects.

A New Type of Cafeteria Building

By Richard P. Wallis

F. E. Wallis & Son, Architects



South elevation, bell-tower, Nela Park, Cleveland, Ohio (showing cafeteria.)

THE new Cafeteria Building now approaching completion at Nela Park, Cleveland, Ohio, for the National Lamp Works of the General Electric Company marks a somewhat radical departure from the customary method of housing the dining service at an industrial plant, and for that reason should be of interest to architects, engineers, and manufacturing executives interested in a happy solution of the dining-service problem.

Nela Park is the home office of the National Lamp Works, manufacturers of Mazda Lamps, and consists of a group of office-buildings and laboratories located in a suburb of Cleveland on the brow of a hill overlooking Lake Erie. At the time of the inception of Nela Park a comprehensive programme was laid out for both architectural and landscape development. This was to insure a policy consistent with securing the best working conditions for the large number of people employed at this plant. One of the principal features of this programme has been the construction of a separate building to house the dining service. Meanwhile this service has been assigned to space intended primarily for other purposes.

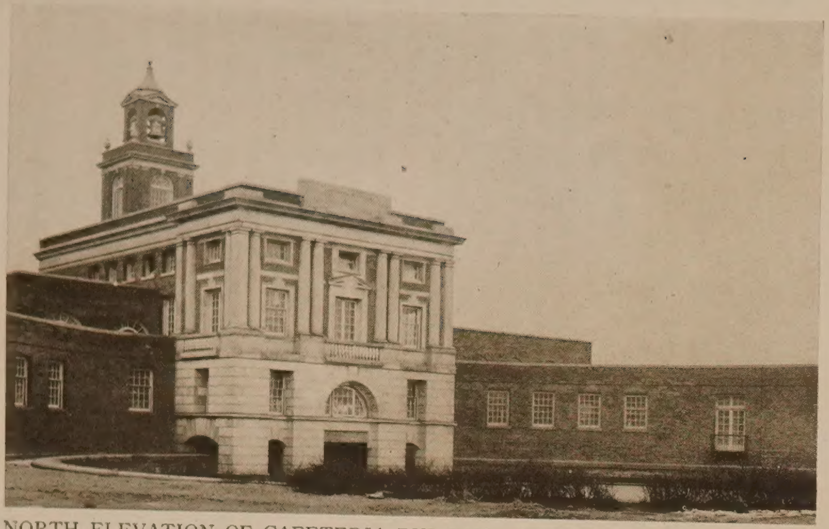
As has been the case at Nela Park, so is it in many industrial plants. The dining service, both in its design and location, has been secondary and accidental. The psychological benefit to employee of changed surroundings during the noon-hour is known and appreciated, but is sometimes difficult to achieve, because the only available space usually consists of office or factory floor area similar in character and design to the space occupied by the employee during the balance of his working day. Cafeteria managers have been greatly handicapped in their work by these limitations.

Soon after the close of the war, as conditions seemed favorable, the architects were instructed to prepare working drawings for a Cafeteria Building to be the centre of a group of three buildings facing on the million-gallon-storage pool. The problem of providing suitable surroundings for the dining service was to be approached unhampered by space conditions or predetermined location. The design and service were to be primary and its location especially selected as that best fitted for cafeteria purposes.

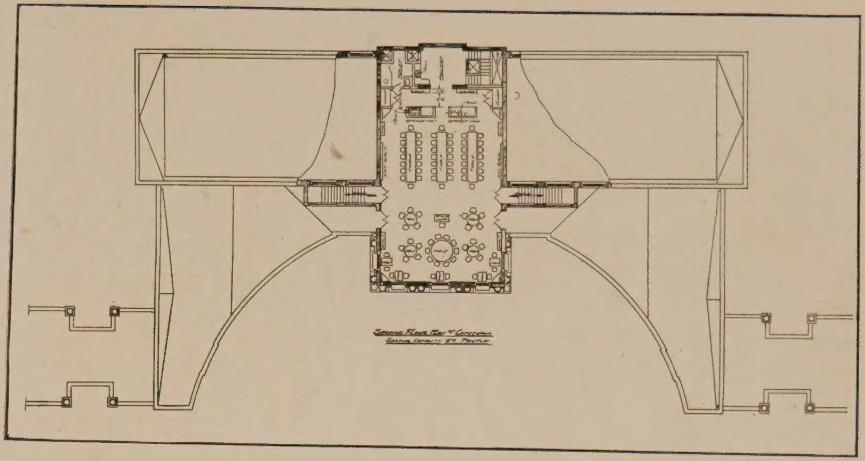
The exterior design is Georgian, to harmonize with the surrounding buildings, yet the treatment is individualistic and distinctive. The walls are of tapestry brick laid in English bond emphasized in spots by Indiana limestone. The greater part of the exterior is plain brick wall and window-openings. Its charm is due primarily to its simplicity and carefully proportioned mass. The composition of the mass is striking, yet is entirely utilitarian in that waste space is reduced to minimum and every square foot of floor space is put to use.

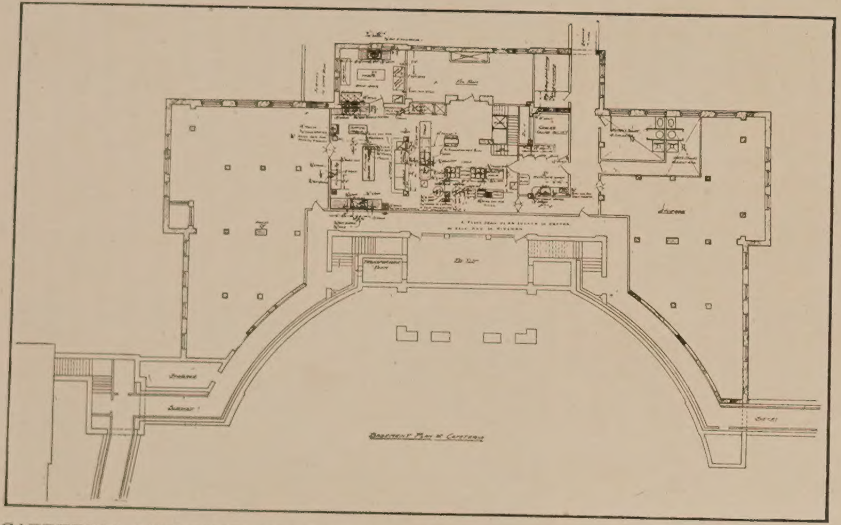
The bell-tower, carrying the Westminster chimes that toll the quarter-hours, is the dominating feature, rising to a height of seventy-two feet above the pavement. The pool pavilion, carried on piers resting on the pool bottom, is surmounted by a bronze group by Robert I. Aitken symbolizing the triumph of light over darkness, for at Nela Park are devised ways and means for producing "the way to better light."

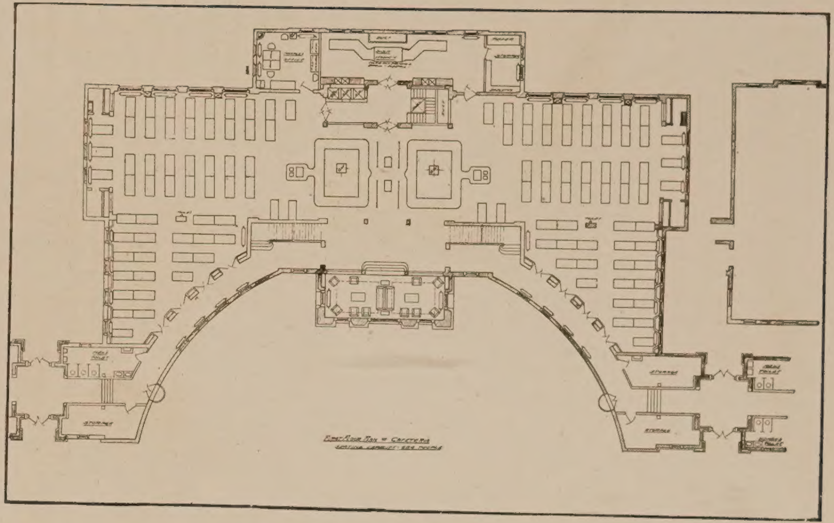
The Cafeteria Building is connected with the buildings on either side by means of ligaments or gates. These are one story in height, simple in design, and form the only grade entrance to the Cafeteria Building. When the landscape work is completed there will be a sunken garden between the building and the curved road immediately to the south. This garden will be enclosed on the road side by a stone wall surmounted by an iron fence.



NORTH ELEVATION OF CAFETERIA BUILDING (SHOWING POOL PAVILION).







CAFETERIA BUILDING AND PLANS, NELA PARK, CLEVELAND, OHIO.

F. E. Wallis & Son, Architects.

The building contains basement, first floor, second floor, and tower. In the basement are located storage-rooms, refrigerator-rooms, fan and machinery rooms, kitchen with its various appurtenances, and café. The service entrance to the building is by means of a tunnel at basement level extending underneath the roadway to a sidewalk elevator located in the adjacent operating building. In this manner supplies are brought in and refuse removed entirely screened from the notice of those using the cafeteria. This method of taking care of delivery prevents the nuisances common to the rear of most eating-places and helps preserve the reputation of "The Best-Kept Plant in America."

The kitchen, together with bake-shop and butcher-shop, is ventilated artificially, removing all smoke and odors of cooking. The walls are tiled and a composition flooring laid in order to make it possible to maintain a high degree of cleanliness. Food is prepared in the kitchen on both gas and electric ranges. The fumes from these ranges are carried off through a double hood located directly overhead which is connected to the ventilating system, and finally exhausted into the atmosphere above the roof level. The kitchen equipment consists of stock-kettles, bain-maries, hot tables, sinks, plate-warmers, and other articles necessary to a well-appointed cafeteria kitchen. A complete dishwashing plant is also installed here. In the bake-shop directly off the kitchen are an electric bake-oven, gas-stove, cabinet, sink with hot and cold water, refrigerator, and large central table. The butcher-shop opens off the other end of the kitchen and contains sink, electric meat-grinder, meat-block, various vegetable and meat coolers. Approximately two thousand and two hundred square feet of the basement is devoted to storage space. This space is located at the west end of the basement near the end of the service tunnel, so that all incoming material is handled with the least amount of labor. Locker-rooms and toilets with shower-baths for the use of the cafeteria employees are provided in a convenient location. The portion of the basement at the east end of the building is to be devoted to a café or coffee-shop. Table service will be provided for those employees desiring it and willing to pay a slight increase in cost over the cafeteria service located on the main floor. This room is to be attractively finished in pine panelling stained with an orange shellac, and will be furnished with tables and chairs of a similar finish. Worked into the panelling will be five booths each capable of seating six persons. The rest of the tables will be placed around the room at the columns supporting the cafeteria floor. These tables are to be provided with hinges so that some or all of the tables may be swung up and secured to the wall when the floor space is needed for dancing. Individual table lighting will be provided in addition to the general overhead-lighting system. This room will have a seating capacity of approximately fifty people and an area of about two thousand and six hundred square feet, or about fifty-two square feet per person. The semicircular subway extends from end to end of the building and connects to the contemplated subway system underneath the two ligaments or gates. This passageway serves not only for purposes of internal communication, but gives direct access to the cafeteria and restaurant above from the adjacent buildings for use in inclement weather.

The cafeteria service is located on the main floor, and has an area of about eight thousand and four hundred square feet. There are two counters located symmetrically on the main axis of the building, each serving two lines of people, the four counters in all serving thirty-two people per minute. Service to the counters from the kitchen below is by means of four electrically operated dumb-waiters. Of these, two are located inside of the counter space and are used for emergency replenishing of supplies during the rush hours. The other two are located in back, underneath the bell-tower, and together with the automatic passenger-elevator and service-stairs form the main means of stocking the counters during the periods between the rush hours. The counters are identical in construction and have both hot and cold connections for preserving the desired temperature of the food.

The mass of the building is of such shape that the two wings on each side of the counters are a story and a half in height. These are lighted on the south walls by high windows. On the north side extend triangular gibs, or horns, one story in height. Across the centre of the building and on the main axis the space containing the service-counters is one story in height, caused by the floor of the restaurant above projecting down into the cafeteria space.

The space allotted for cafeteria purposes has a capacity of six hundred and eighty-four persons, which gives a unit area of 12.5 square feet per person including passageways, counter space, seating space, etc. The tables are thirty inches wide and are arranged with a space of three feet between. Two feet of table length is allowed per person. A width of five feet has been maintained for all aisles. The tables are of wood finished in mahogany with vitrolite tops and porcelain feet. The chairs are of bent-wood, also finished in mahogany.

The interior walls are painted in two shades of browns. A heavy plaster cornice extends along both sides of the story-and-a-half portion at a height of twelve feet from the floor. The floors and base of this entire room are of composition, colored a dark gray. This composition floor is resilient enough to be comfortable under foot, and yet is damp and vermin proof, two very necessary attributes in a building of this character. All woodwork is of oak filled and stained somewhat similar to the trim in the adjacent buildings.

At each end of the story-and-a-half portion are balconies, each containing a projection picture-machine. The side-walls of the restaurant where it cuts into the cafeteria space serve as screen. These picture-machines may be used either for entertainment or instruction.

The question of traffic has received considerable study, and unnecessary crossing of lines and congestion have been eliminated. On clear days the people enter the building through the two gates, pass through the semicircular passageway on the pool side of the building to the central portion, from whence some continue on to the counters, and others go either up or down stairs to the restaurant or café. Those entering the cafeteria pass through the counters into the table space on either side. When they have finished eating they pass out into the semicircular passageway again, and out the same way as they entered. When future plans are realized and the general subway layout is complete it will be possible to reach the cafeteria from any building at Nela Park through the subway in the basement without being exposed to the weather. When it is remembered that Nela Park has a decided northern exposure, and that there is nothing between it and Lake Erie to break the force of the winter wind, this subterranean means of approach will be highly appreciated. On the south side contained in a one-story wing are the cafeteria manager's office, dishwashing-room, and storage-room. The dirty dishes are collected on rubber-tired trucks and are wheeled into the dishwashing-room, where they are washed and stacked away for future use. Sinks for washing the silver are also located in this room. This service is screened from the cafeteria by means of two sets of swinging-doors.

One of the interesting features in this building is the experimental show-window located on the curved passageway just inside the east gate. Here has been built into the wall a typical street show-window seven feet six inches high by ten feet wide in which studies are made of various types of window-dressing. This is conducted by the publicity department, and the results of these experiments are at the service of all dealers selling Mazda Lamps or using them in their window displays.

The rendezvous, or trophy-room, is located in the central wing opposite the counters and extends out over the pool. It is at a somewhat higher floor level and is reached by broad wooden steps. Here are kept various trophies won by teams of the National organization. It is furnished with chairs and benches and serves as a congregating-place during the noon-hour.

The entire cafeteria space is artificially ventilated, the fresh air being brought in from the outside, washed and reheated to proper room temperature before being blown into the room through the registers. The foul air is exhausted by a separate system and is blown up through the roof. This continual interchange of air insures an absence of disagreeable odors. The cafeteria space as well as the rest of the building is heated with hot-water radiation brought in from the mains in the pipe tunnel. Toilet facilities are located at either entrance. The artificial lighting of this cafeteria space is accomplished by the use of Ivanhoe Ace fixtures suspended from the ceiling in a symmetrical layout, giving an average illumination of about six-foot candles on the working plane or table-top.

The restaurant, or managers' dining-room, is located on the second floor, and occupies a space approximately thirty-five feet by fifty-six feet directly over the counters of the cafeteria below and causes the low ceiling previously mentioned. This structure is carried on seventy-two-inch concrete beams spanning the counter space below. This room is intended, like the café in the basement, to provide table service to those desiring it and willing to pay a somewhat higher price. Access to this room is at the pool end, and is by means of stairs ascending from the semicircular passageway. The service is at the opposite end and is composed of the continuation of the same dumb-waiter, push-button electrical elevator, and stairway that serve the cafeteria.

The room is finished in oak panelling in simple design to a height of eleven feet. Above this extends the clear-story painted in old ivory with ornamental plaster cornice extending around the entire room. This plaster cornice serves a dual purpose, as it conceals the supply-duct that conveys fresh air to the registers located in the four corners. A row of windows along each side and the pool end of the clear-story admit considerable daylight. The pool is viewed from this room through five French windows, each with a stone balcony.

The table arrangement provides for sixty-four persons and is arranged in units of two, five, ten, and sixteen persons to a table. The room has an area of about two thousand square feet or a unit area of about thirty-one square feet per person. The furniture for this room is of special design, to be in harmony with the panelling. There are two counters at the service end, one hot and one cold. China and linen closets are provided, and in the pantry a sink so that the silver used in the restaurant may be kept separate. Toilet facilities are also provided for on this floor.

On either side next to the doors to the head of the stairs are doors opening onto the roof of the one-story portion of the cafeteria. This roof is tiled and has a parapet wall, and is suited to be used in summer weather for additional tables.

Located over the service end is a projection picture-booth. Above this booth is the fan-room that ventilates the restaurant, and above that the room in which is housed the clock machinery which strikes the chimes.

Cool drinking-water is provided on all floors by means of a circulating water-system. This system is operated by cooler and pump located in the basement, and also extends to the adjacent Treasury Building. Indiv dual germ-proof fountains spouting in a parabolic stream are provided in the kitchen and the corridor space in the basement, and special fixtures in the café and cafeteria.

The china used in the cafeteria is special, and is made individualistic by a small representation of the north elevation of the Cafeteria Building burned on the rim of the plate.

With all of the varied service furnished in this building the number of operators is small, only about forty-five people being employed in the operation of preparing and serving food.

Charleston Doorways

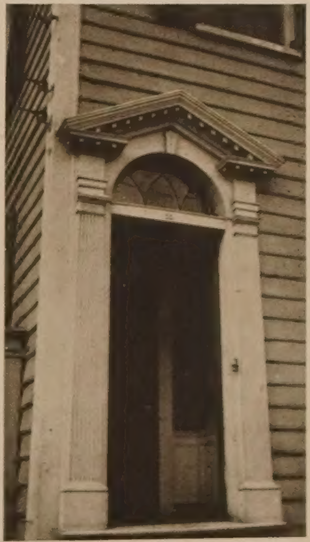
A Series of Measured Details, Beginning in This Issue

By J. A. Altschuler

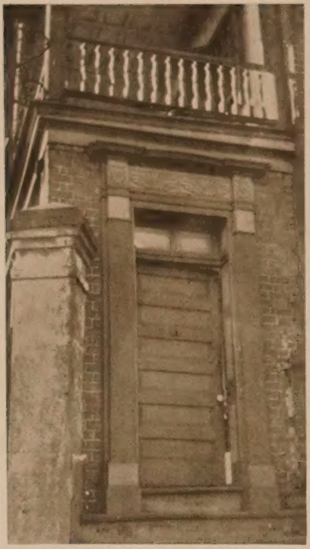
TO find the great charm in Charleston doorways is not difficult. It is difficult to trace the source of most of the lesser ones, of which these drawings are examples. It is known, however, that most of Charleston's fine old residences were built by contractors, who came over from England, bringing their trained mechanics and artisans, their brick and other material, and there remained to give to Charleston and the neighboring country its charming colonial homes.

The spirit and character in these doorways lies in the original and appropriate detail and pleasing proportions. In them we see a great deviation from the pure and stereotyped classical parts, cornices, mouldings, and details, which unfortunately is true of our modern attempts at much colonial work we see about us.

Great freedom is shown in the cornice. The various parts are considerably lightened in comparison to the classic —the architrave given less height, the frieze more height, and the cornice less height and more projection. Altogether, with the refinement of detail and mouldings, it gives one the feeling of genteel domesticity greatly pleasing to the eye.



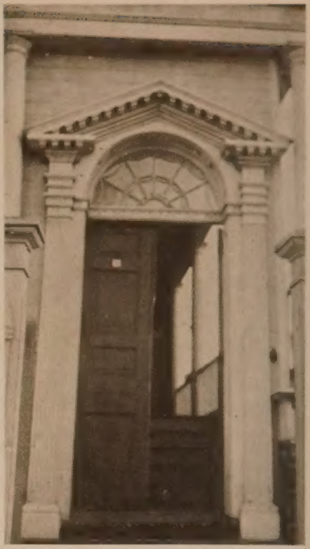
Doorway, 55 Church St., Charleston, S. C.



Doorway, 301 East Bay Street South, Charleston, S. C.

The mouldings are all hand carved, the detail and ornament cut in the wood or planted on all with skill and painstaking care, and the mouldings chosen to be ornamented show the proper artistic skill and restraint in their relation. The doorway of No. 301 East Bay Street South is an extreme example of overornamentation, though by no means lacking in interest. This is the only example of its kind in Charleston, and is somewhat crude in its carvings, especially the flute pattern in the pilasters, which is jagged and uneven, and plainly shows the untrained hand of the artist. Not many of the original doors are in place. Constant use for generations in most cases has outworn them, and they have given way to more or less modern doors, which only serve to mar the general effect of the doorway.

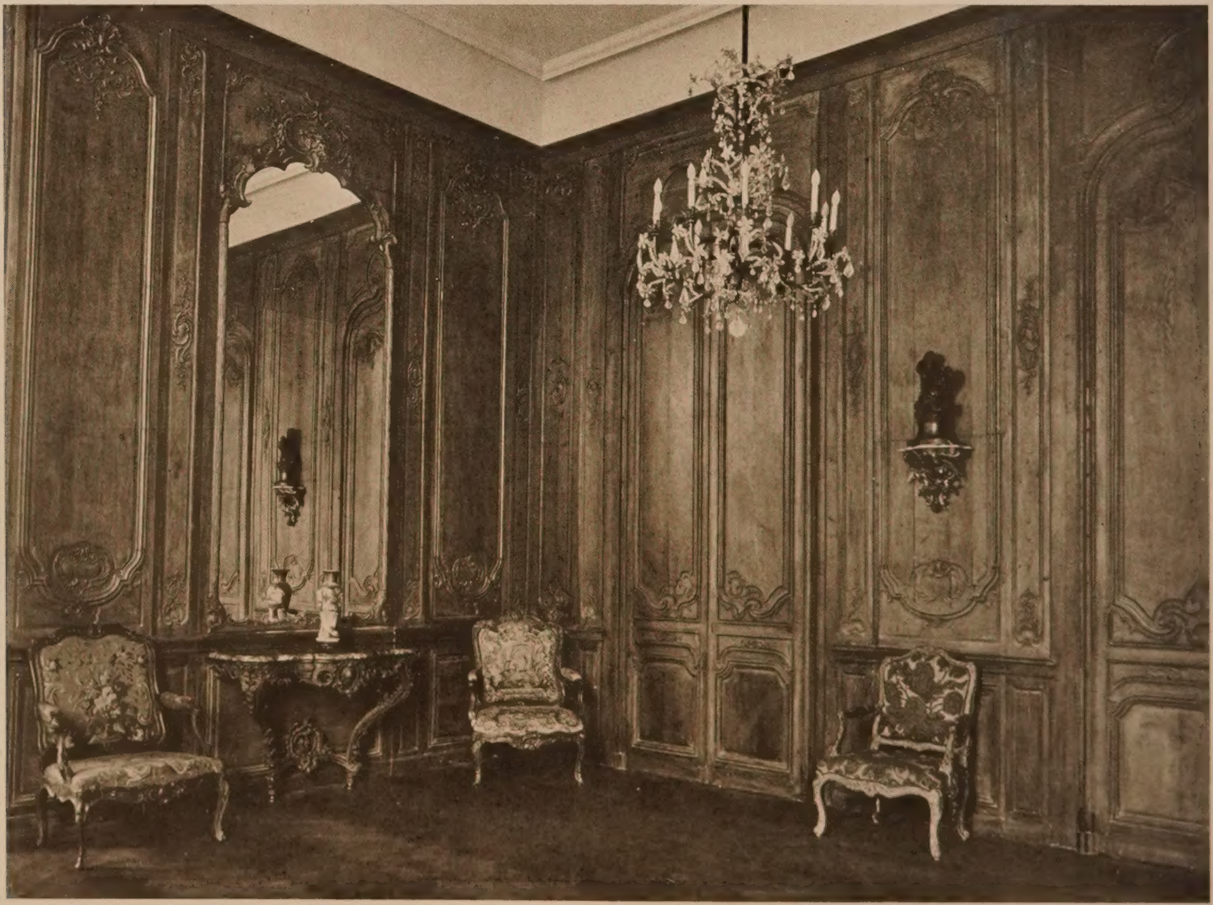
See Plates LXXXVI, LXXXVII, LXXXVIII.



Doorway, 39 Bay Street South, Charleston, S. C.

A Louis XV Panelled Room

THROUGH the further generosity of J. Pierpont Morgan the Metropolitan Museum of Art has recently acquired the woodwork of a room of the period of Louis XV. The panelling has been installed on the second floor of the Morgan Wing. In its original position the woodwork probably made the four walls of a room, but the exigencies of installation have necessitated a three-sided arrangement with the omission of the alcove enframement which is on exhibition close by. It is impossible to say just what the original arrangement was, but the presence of an alcove, about ten feet in width, would suggest that it was a bedroom.



Courtesy of the Metropolitan Museum of Art.

Editorial and Other Comment

6,000,000 Homes

WE are told that 6,000,000 people in the United States own their own homes. Probably a million of these have been acquired within the past few years, for thousands who were renting had to buy homes in order to keep a roof over their heads—it was generally a case of buy or get out. Even so, in many instances the interest on the purchase prices amounted to less than rent and the home question was settled. The more homes owned the better for the owner, the better for the country. Nothing has done more to further unrest and prevent the assimilation of the great mass of aliens than the constant shifting of population. A nation of homes is a nation unified. Look at France! England has realized the home factor as a powerful element in restoring industrial peace, and she is making sacrifices to meet the demand.

No subject discussed at the recent Convention of the American Institute of Architects was of greater importance than the one of small houses.

"The architect, if he is to maintain his position as the designer and supervisor of buildings, must pay attention to the problem of the small house, the home of the family of small income and simple tastes."

The Need for Practical Idealists

OF course architecture as a profession, "if it is to get anywhere," to use the parlance of the practical man, must be something besides a nice job for a man of taste, interest in the arts, and a competence. We have listened in at many conversations in the last four or five years, where the chief argument was that the trouble with the architect was that he hid himself behind his more or less artistic office furniture and some prints of famous antique buildings, expecting clients to come in and be thrilled by these evidences of culture. There is a lot of truth in this sort of sarcasm, and sooner or later it sinks in and we hear from it.

There is always a certain element in any profession who take the profession for the guinea stamp, overlooking the fact that it isn't the stamp that gives value, but the metal upon which the stamp is put. We hear a lot of vague talk about living up to our ideals; but how seldom we come upon a clear and convincing statement of the significance of these ideals. What are our ideals? Are they pure abstractions, mere states of mind, nothing more than a condition of overwrought sensations, emotions out of which come but a collocation of mere words?

We are all forced by circumstances to take stock of ourselves now and then, and many of us have seen the light in these late years, and found that if we are to have the confidence of our associates we must manifest our so-called ideals in pretty tangible ways. At the recent convention of the Institute there was amply shown the new attitude toward the practical aspects of the profession of architecture, there was no lack of practical discussion, of practical and invigorating criticism; and, too, there was talk of ideals, and these were practical in that they expressed those qualities of character and moral stamina without which the practical man is usually a failure.

We confuse the cant of idealism with the real thing. It is the practical idealist we need, the man with vision united with knowledge and the power to do. There are in architecture, as in the painter's art, men who belong with the vorticists and the cubists, but neither architecture nor art should be judged by their ways.

St. Peter's could never have been built by a mere idealist, and our greatest Gothic monument to trade, our cathedral of business, the Woolworth Building, bears testimony to the modern world of the practical genius of its architect and his associates.

Getting Better

BUILDING conditions are improving, there is a very marked advance shown in the demand for new construction, and the prospects grow more encouraging as the season goes on. The only thing that threatens a setback is the attitude of labor. The greatest demand is for places for people to live, residences and apartment-houses. In New York the new ten-year tax-exempt law is helping a great deal and there is renewed activity on all sides. There are blocks and blocks of houses in all our cities that might be profitably made over into garden apartments. Some of these that have been done have been notably successful from every point of view.

In New York State building contracts have increased something like 70 per cent over previous months.

According to local figures, builders in the New York metropolitan district are filing plans for more than 1,000 homes a week, including houses and flats.

How Politics May Spoil Good Design in School-Building

DRAWINGS have recently been submitted for a new large high school in Hartford, Conn., which recalls certain facts connected with a previous high school built in that city some few years ago, which developed a condition of considerable importance to the profession. It does seem as if some sort of concerted action on the part of the institute might have improved the quality of mercy possible in such cases, but we believe the difficulty remains and may even appear again in this later undertaking. It is this:

The plans for the previous high school were selected by invited competition conducted by the late John M. Carrere before an appropriation for the building had been made, but the money finally voted was only enough to erect about two-thirds of the building.

This is a very common occurrence, to say the least, and the situation a very natural one. But the law is such that a commission having in charge public work can contract for no part of a building for which funds are not in hand. This applies equally to work of the architect. The commission having in charge this school could only employ the architect to produce working drawings for the portion to be built. Of course, if the case had been one of insufficient funds for a building that it was hoped to completely finish, the plans could and would have been completed and paid for, even though it developed that only a part could be undertaken, but, in the case in point, the project went before the voters of Hartford as asking money for a part of the building. Hence, by law the architect's services had to be limited to this part, with the result that the building was later completed under a second appropriation and, due to a political turnover, under a new commission, who thereupon employed another architect.

The injustice here is apparent, but even so in certain styles the result might have had an added element of interest. This building, however, was symmetrical, with a centre and two wings, and the later architect merely reproduced the wing that existed, the design of another architect which had been fairly won in competition as a complete building and had been restudied and presented as such in many sketches, both plan and exterior, but for which no compensation had been given on the cost of this wing.

No architect could, under the conditions, do otherwise than plan the building as a whole. The first commission must have a complete knowledge of what the whole is to contain, and of the appearance of the whole when done, so that even if the architect were not so disposed he could hardly avoid making complete sketches.

Not only this but, furthermore, the initial performance must include adapting the part to be built so as to arrange for much that will ultimately go into the finished building. All this the architect is not paid for, if he fails to secure his reappointment, but also hands on as a gift to his successor in enforced generosity.

If the original commission had continued the building, the promises they naturally and freely made to cover this situation would doubtless have been kept, but they were powerless to commit the city, and the architect's case rested on the uncertainty of their succeeding themselves, which, of course, in municipal politics is a very uncertain basis.

The purpose in reviewing the history of this case—and there have been many others like it—is to ask if in some way the law cannot provide a way for a commission to procure their design entire before proceeding, even if only a partial appropriation is made.

According to present law, no commission should be bound by their predecessors, but unless some way can be found to bind them to a design, the time spent to perfect the design for any comprehensive scheme is not only done at some architect's expense, but is very likely to be a loss to the community for which it is created. Indeed, this is the real evil in their freedom of contract, that a good design or a comprehensive plan of future development may be disregarded for reasons quite petty, political or personal, by the succeeding commission.

Obviously the law as it stands is good in those opposite cases where a project has been unworthily or inconsiderately begun. Anglo-Saxon common law assumes innocence and insists that guilt must be proved. But the law binding commissions is like French law in that it would appear they are assumed to have made a failure of the business, and must be ever ready to give way to honest men. But is it fair that the law should stand thus when certainly the majority of undertakings are entitled to the presumption of their being well and honorably handled? The seriousness and integrity of those in positions of public trust has greatly increased, and architects also doubtless bring to bear a better training and more serious devotion to attaining something really worth while, yet our laws are better suited to the times of the Tweed ring.

Why not, therefore, have the law so amended as to allow a commission to make plans with scope and proper regard for the future and pay for them, no matter whether the whole or only a part of the money is voted, so long as the voters see the scheme presented in its entirety, and so know that in voting a part they are also pledging their support to finish the job in due time, leaving, on the principle of the recall, a way by which the plan can be changed or abridged when circumstances warrant, that is to say, when cause is shown that there should be a change.

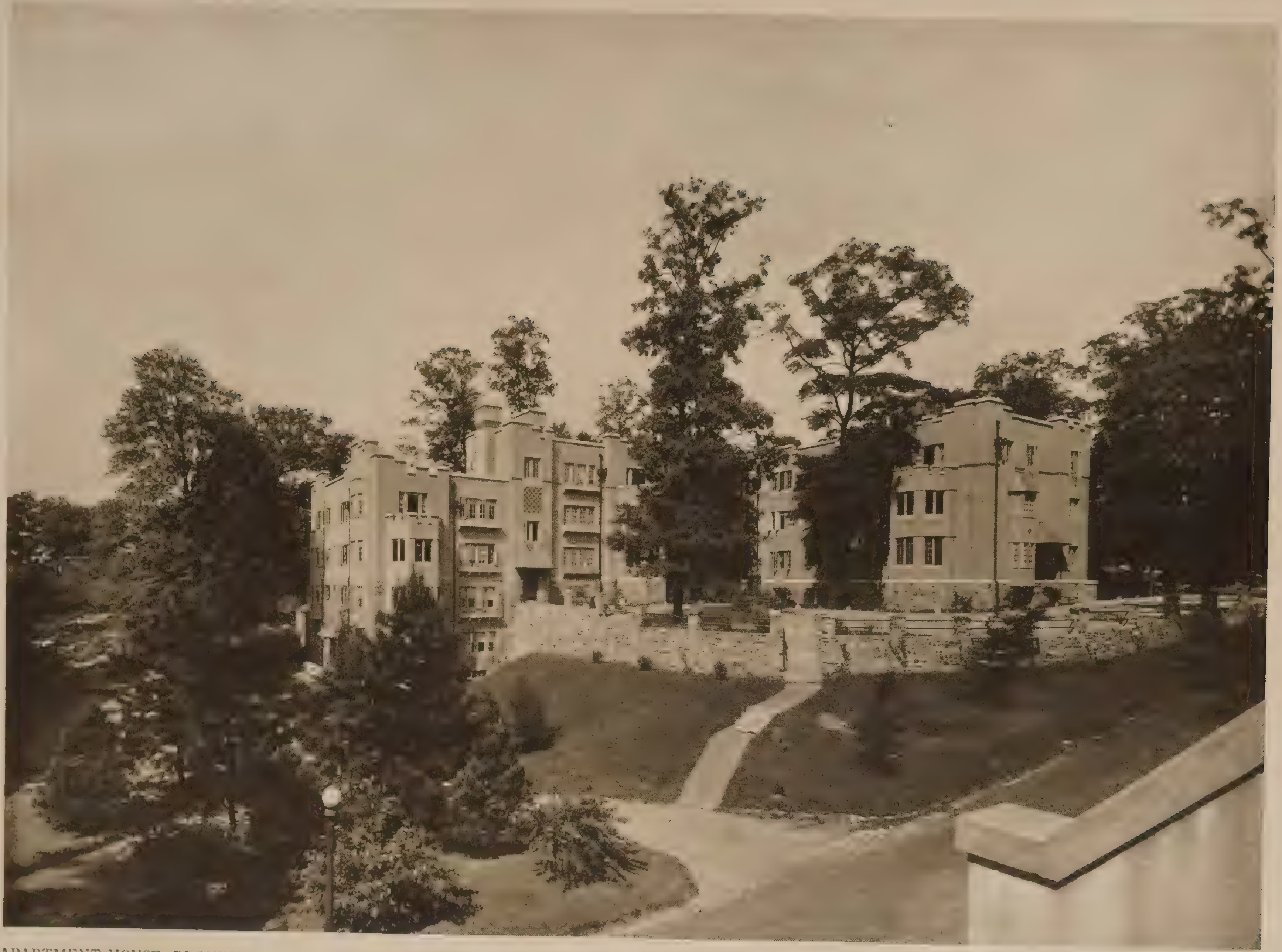
Though several years have elapsed since this high school was built and the injustice of what took place was very generally recognized, the new one is about to be undertaken, with a possibility of the same situation arising, for here again one notes a programme of competition frankly admitting that the Assembly Hall and Gymnasium features must await a further appropriation. Yet the competing architects are asked to design the whole building, prepare for comprehensive and orderly growth (as they should be) and yet must trust to the chance of politics for the realization of their design and remuneration for their labor.

Summer Session in France

Season of 1921, June to September, New York School of Fine and Applied Art

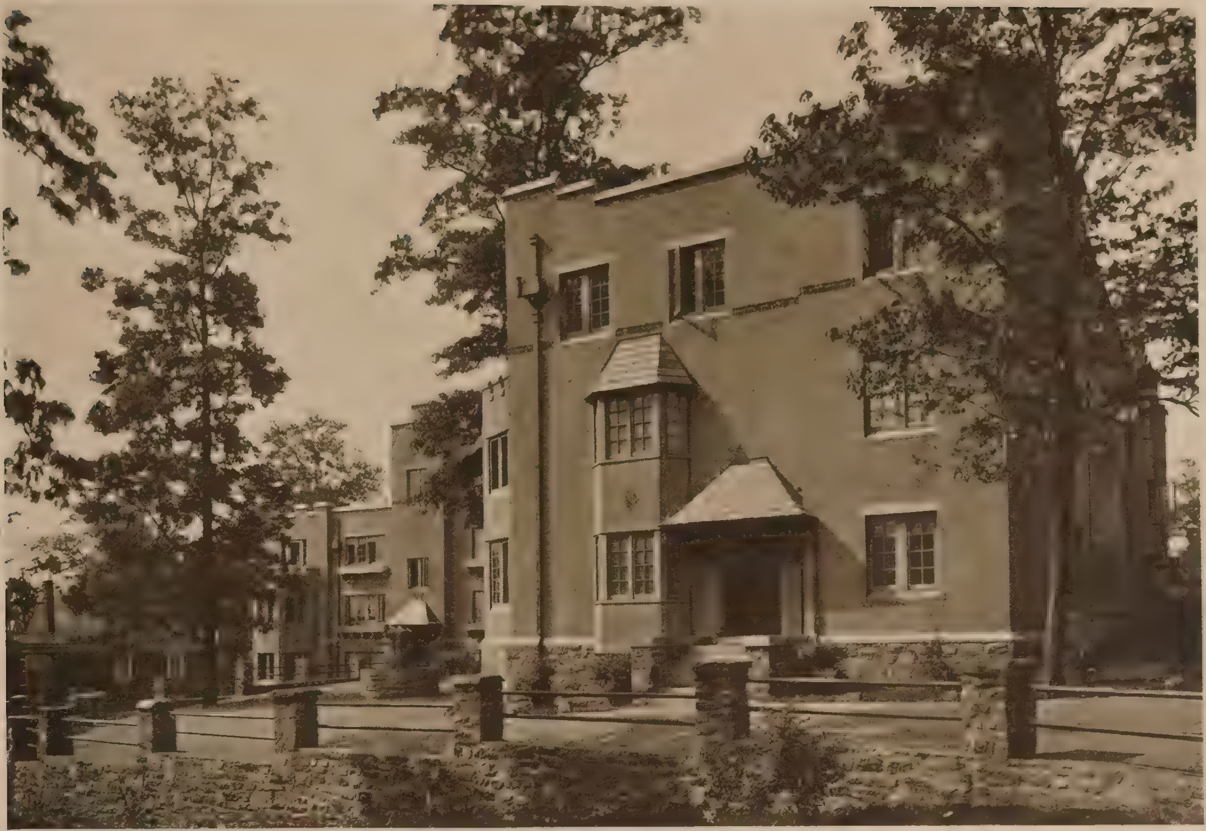
THE persistent demand by architects that interior decorators shall better understand the essentials of architecture, by the interior decorators that students shall be given a more thorough professional training, by a more cultured public taste demanding that there should be a greater measure of harmony between the purpose and process of these two professions, is the fundamental reason for the establishment of this school. Its chief purpose is a fuller and richer understanding, a more thorough professional training, and a closer correlation of architecture and decoration as they are associated in modern life.

For further details concerning the school, address the Secretary, New York School of Fine and Applied Art, 2239 Broadway, New York, N. Y.

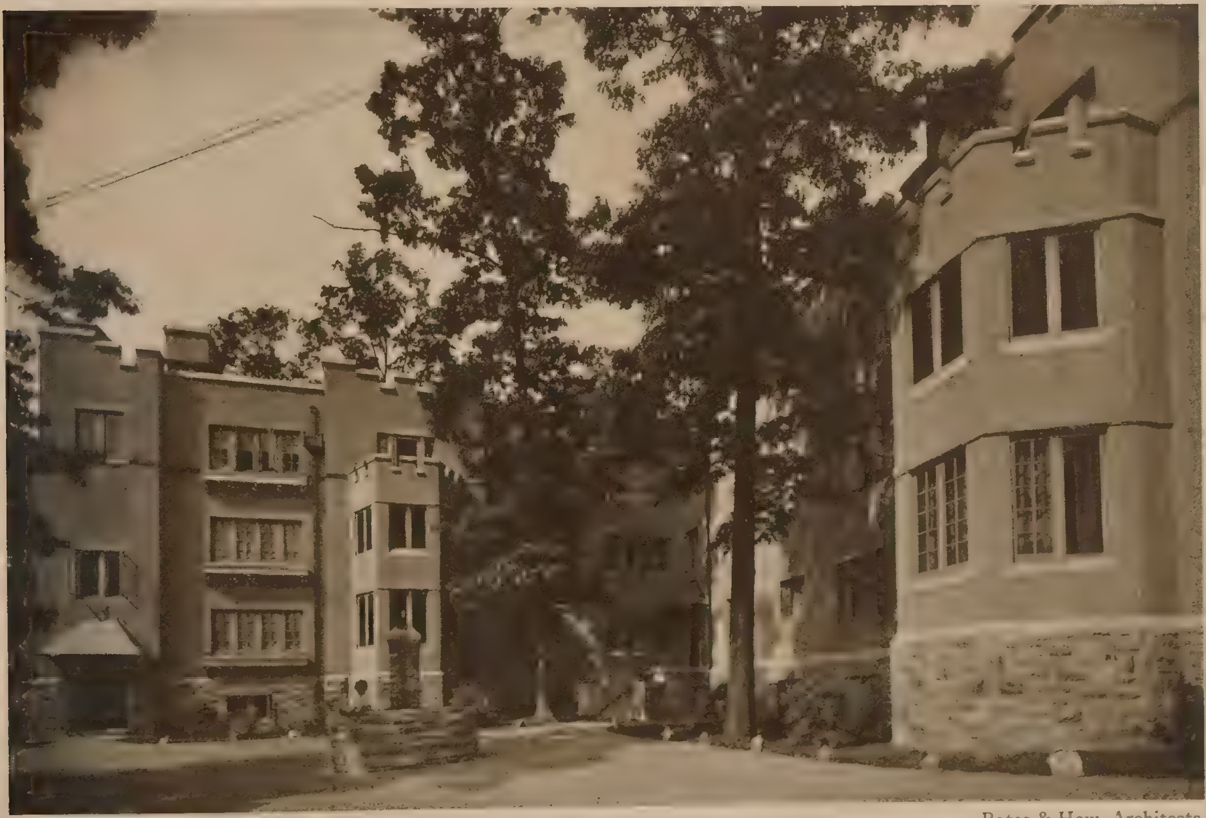


APARTMENT-HOUSE, BRONXVILLE, N. Y.

Bates & How, Architects.



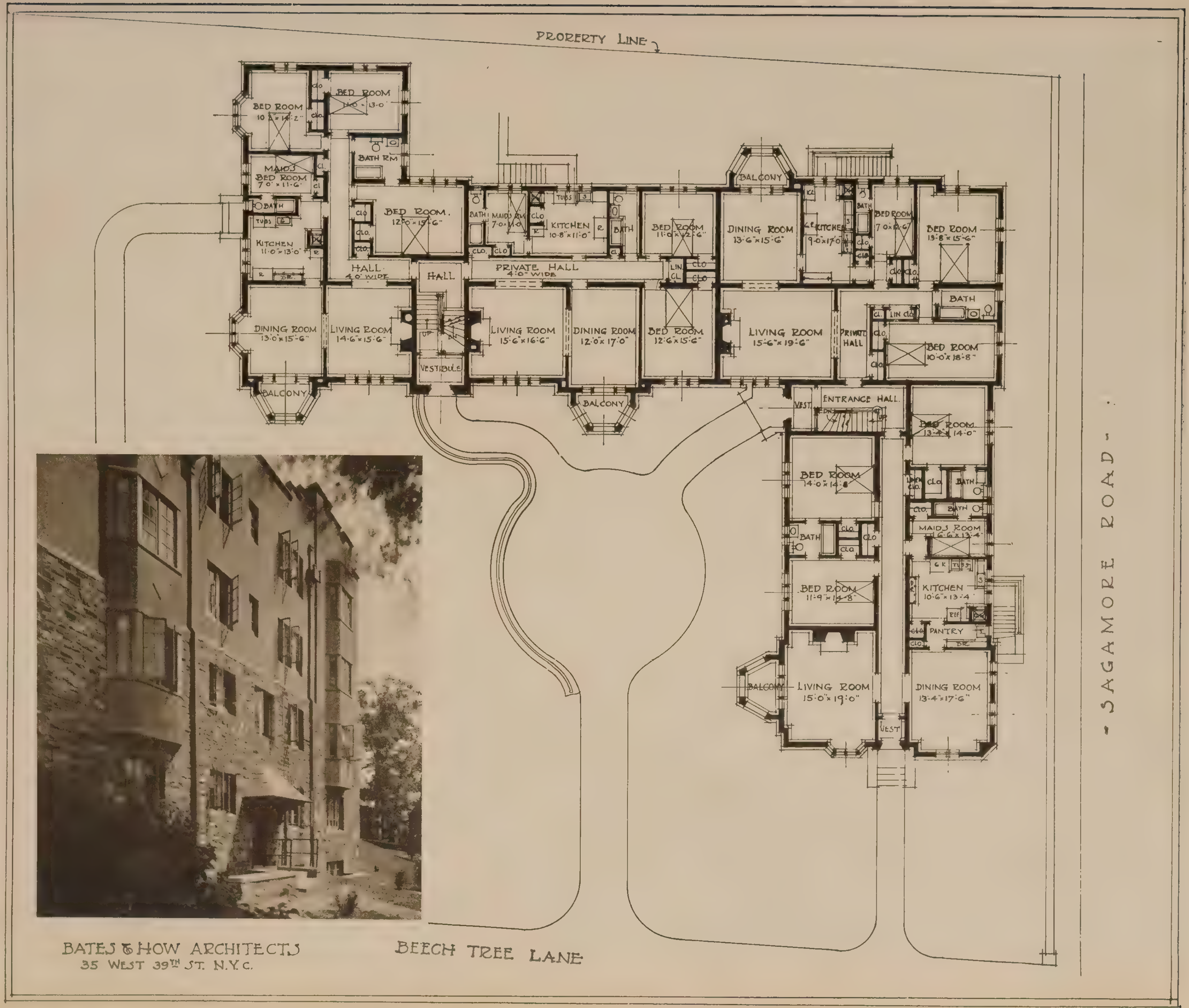
VIEW FROM SAGAMORE ROAD.



THE COURTYARD.

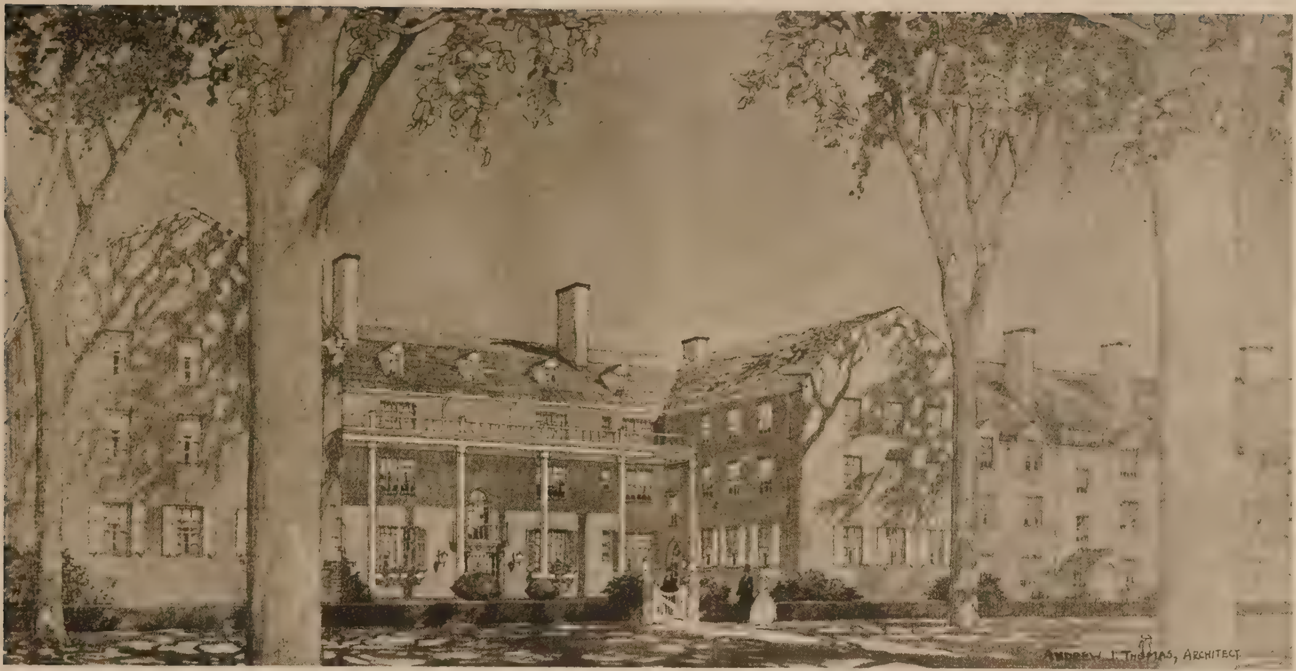
Bates & How, Architects.

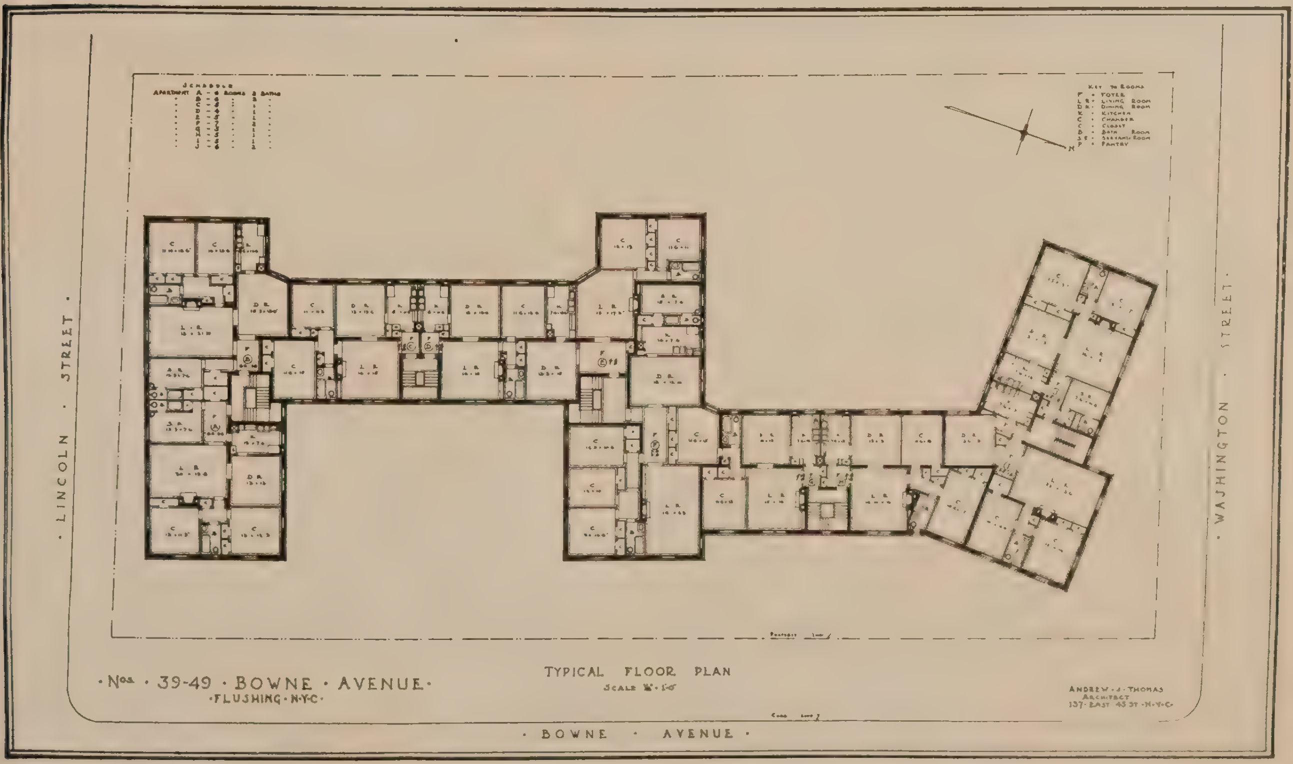
APARTMENT-HOUSE, BRONXVILLE, N. Y.



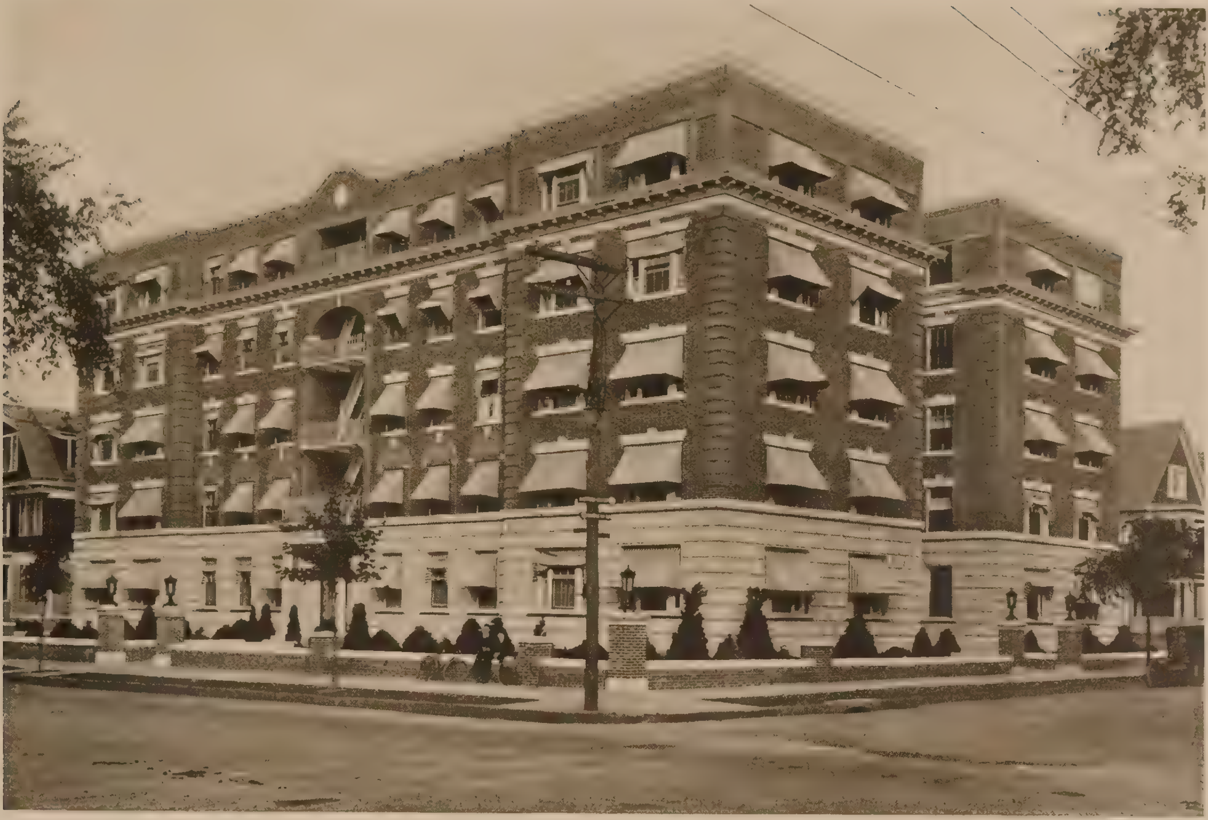
PLAN AND DETAIL, APARTMENT-HOUSE, BRONXVILLE, N. Y.

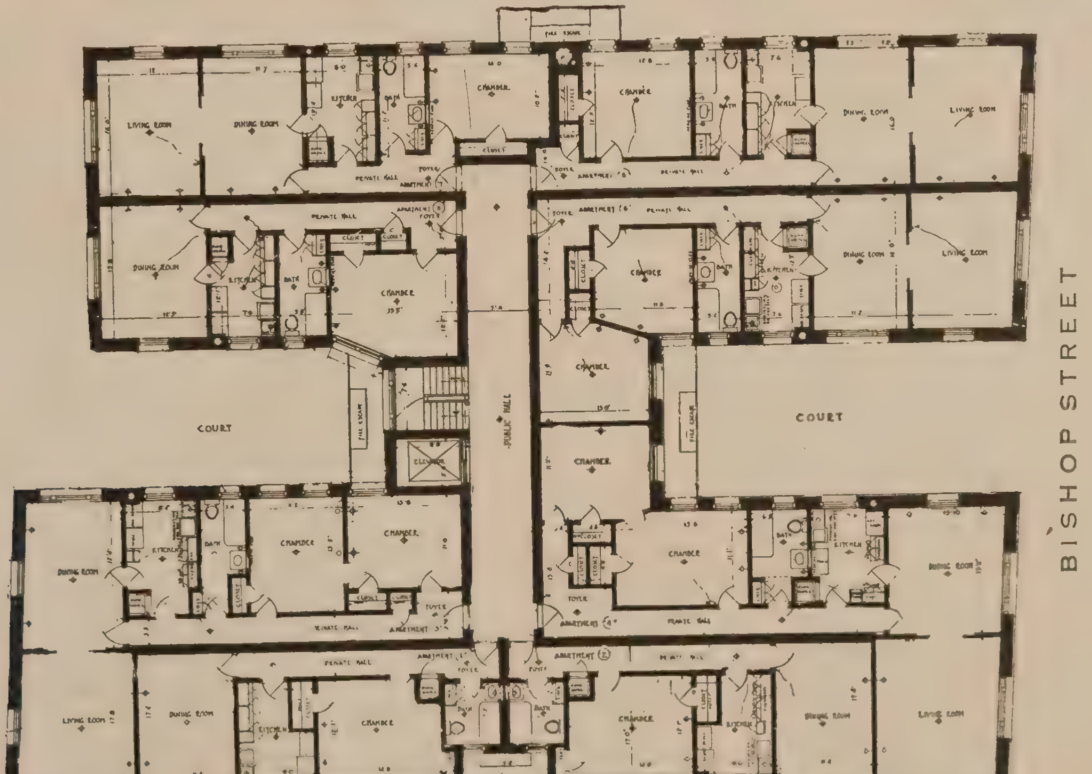
Bates & How, Architects.



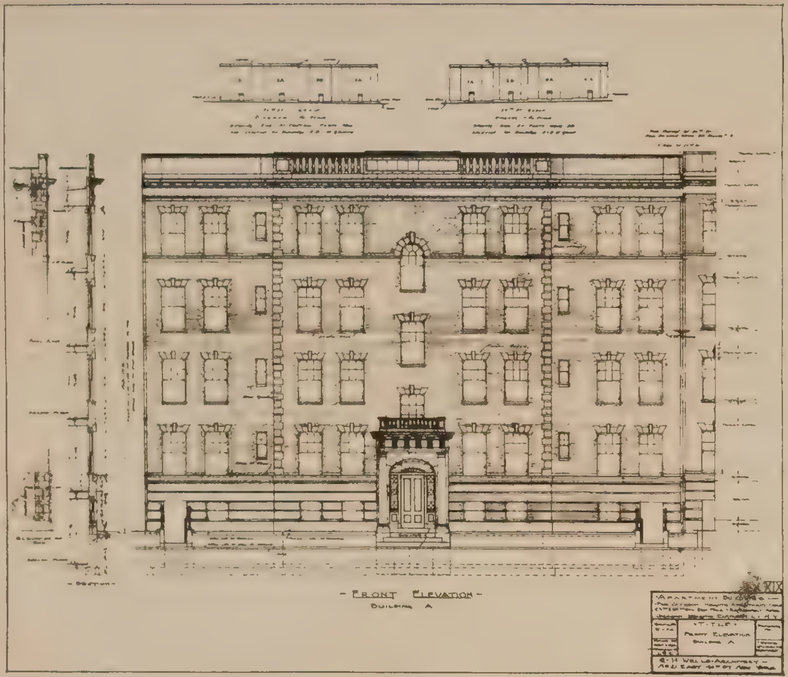


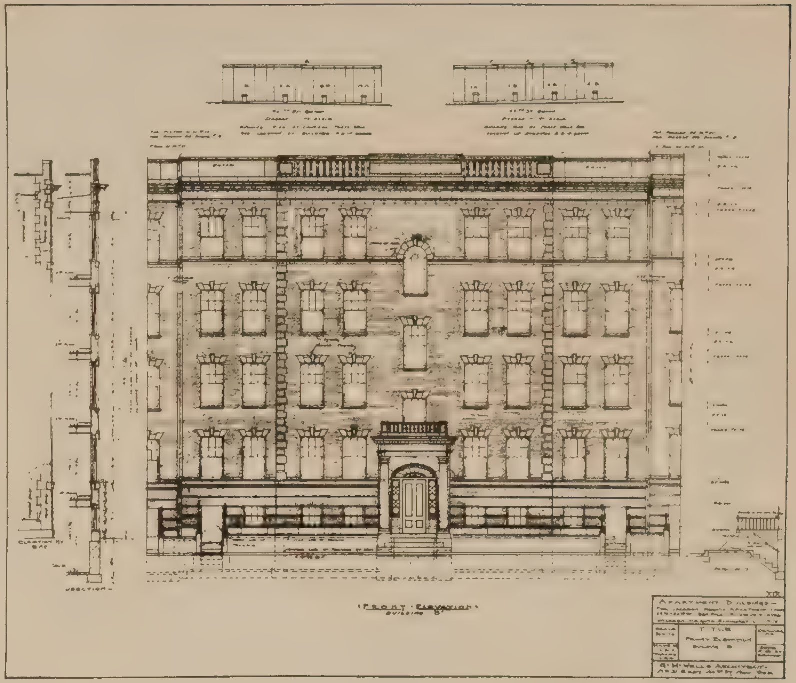
DESIGN FOR APARTMENT-HOUSE, FLUSHING, N. Y. Andrew J. Thomas, Architect.

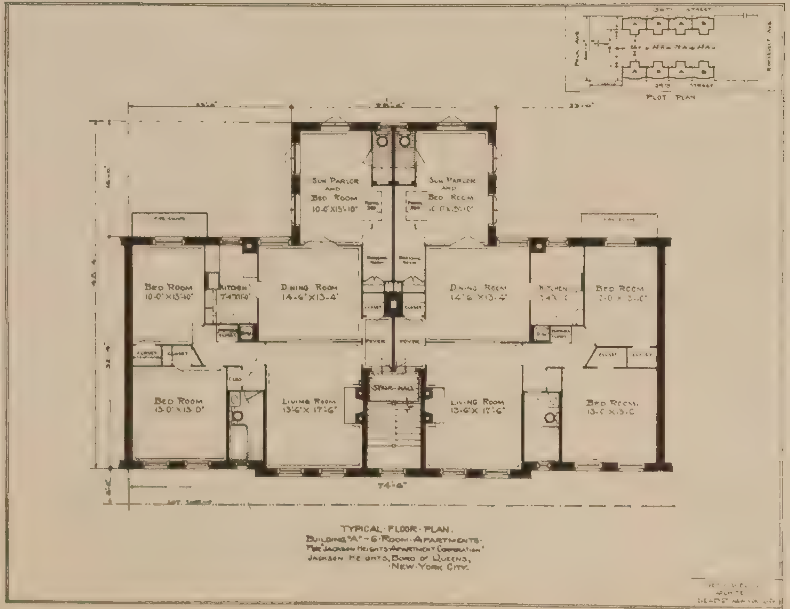


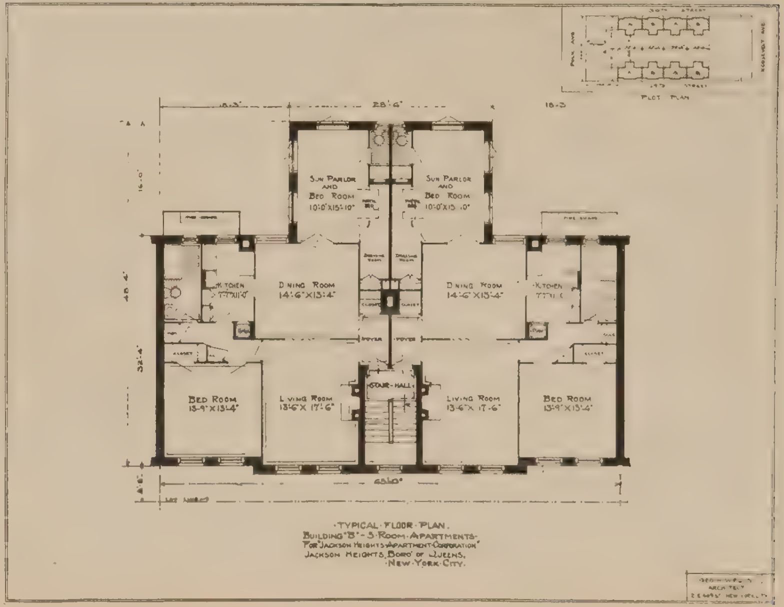


APARTMENT-HOUSE, NEW HAVEN, CONN. Jacob Weinstein, Architect.



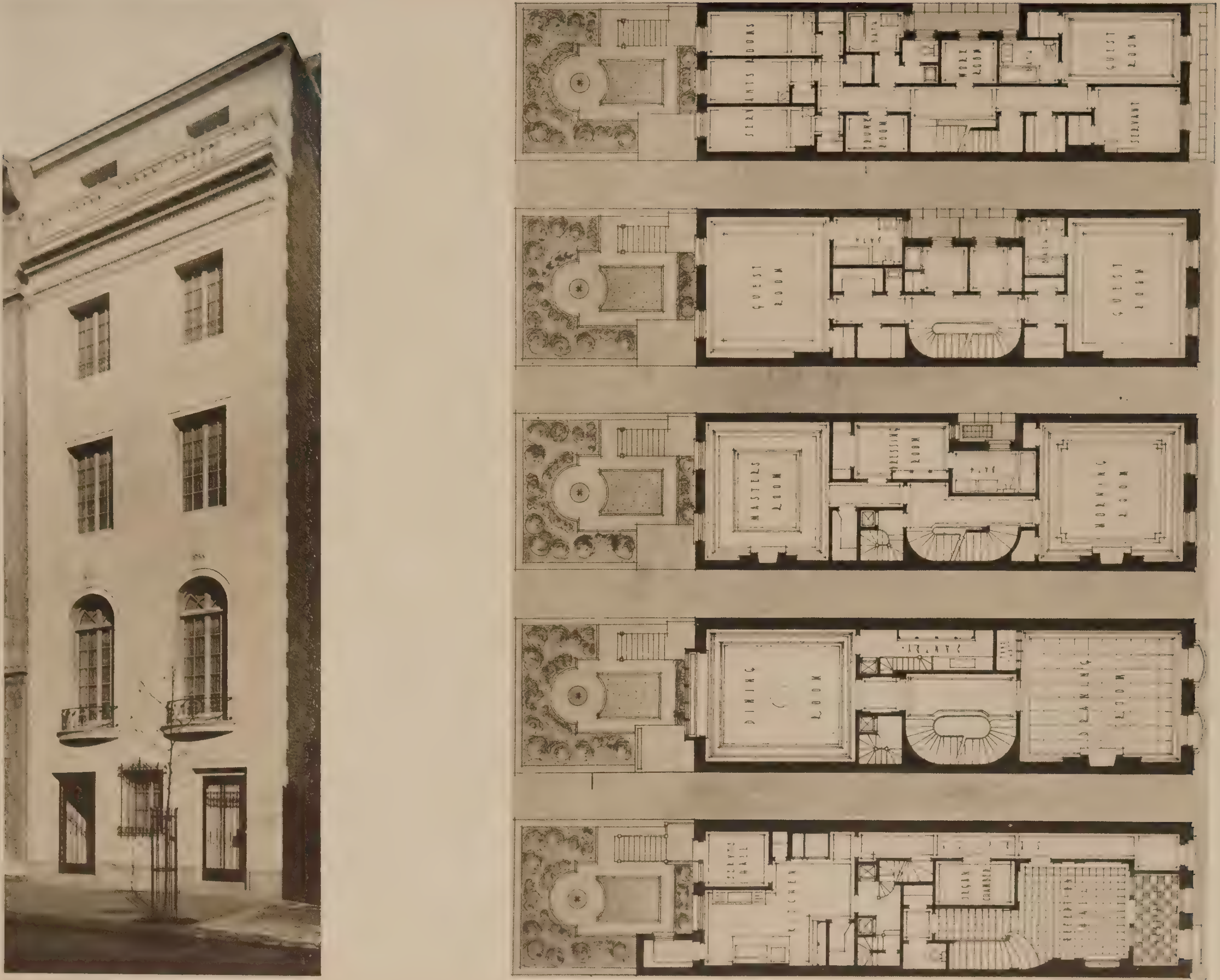






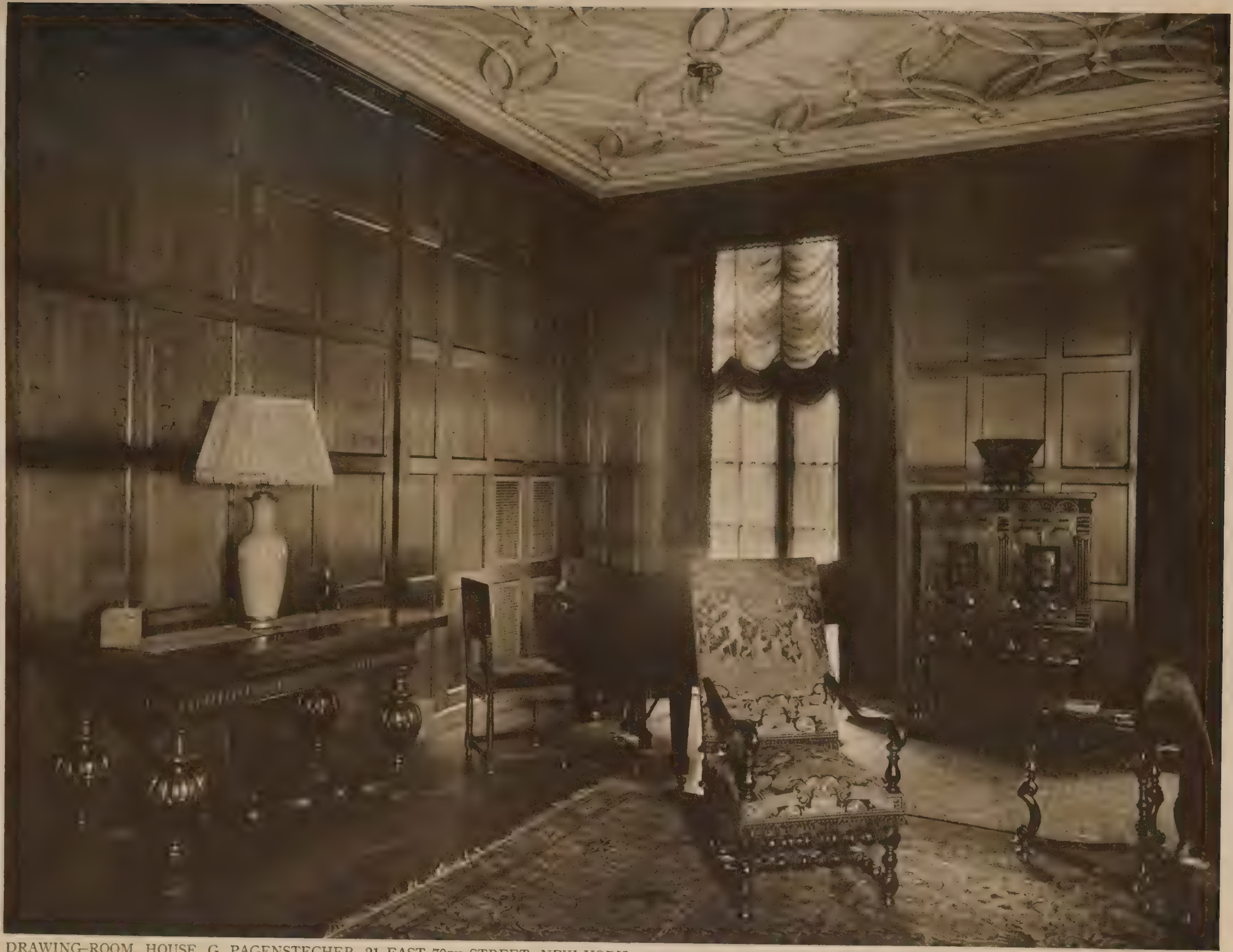
TWO TYPES (4 AND 5 ROOMS) FOR APARTMENT-HOUSE GROUP, BOROUGH OF QUEENS, N. Y.

Geo. H. Wells, Architect.



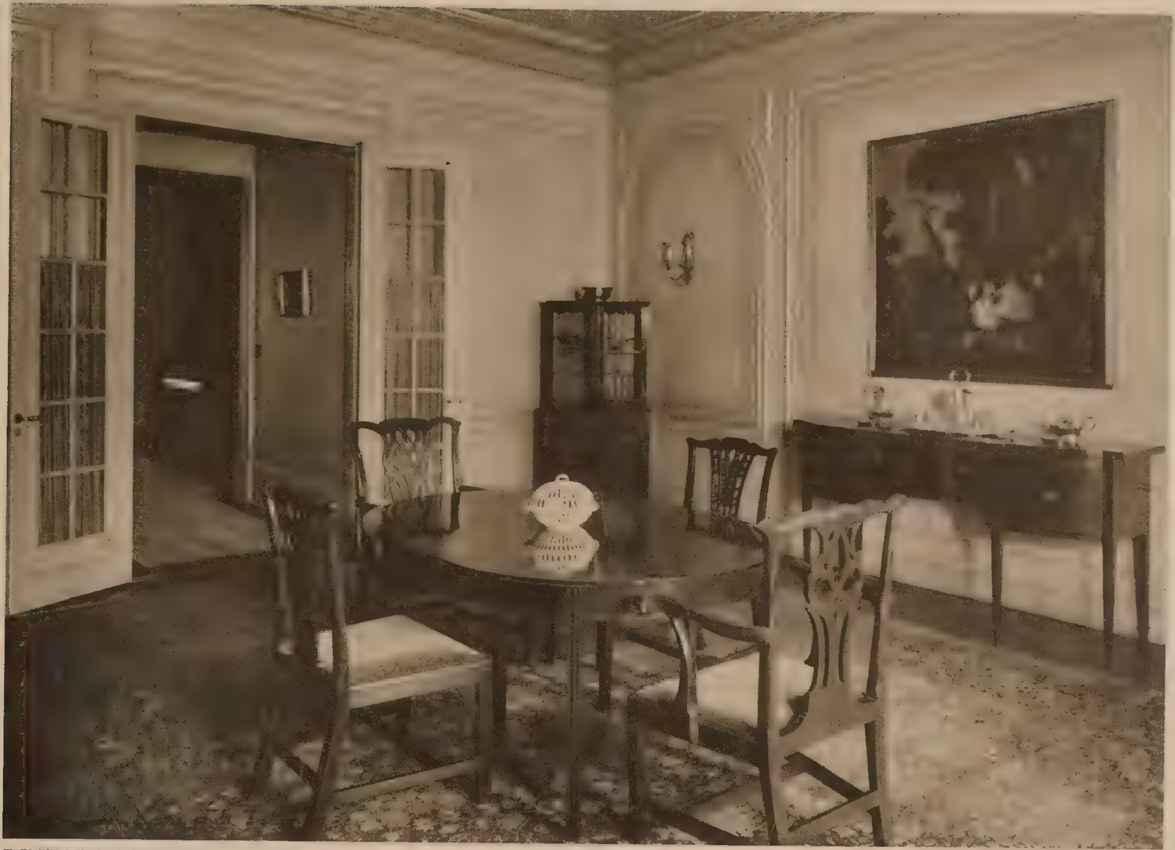
HOUSE AND PLANS, G. PAGENSTECHER, 21 EAST 70TH STREET, NEW YORK.

Rogers & Haneman, Architects.

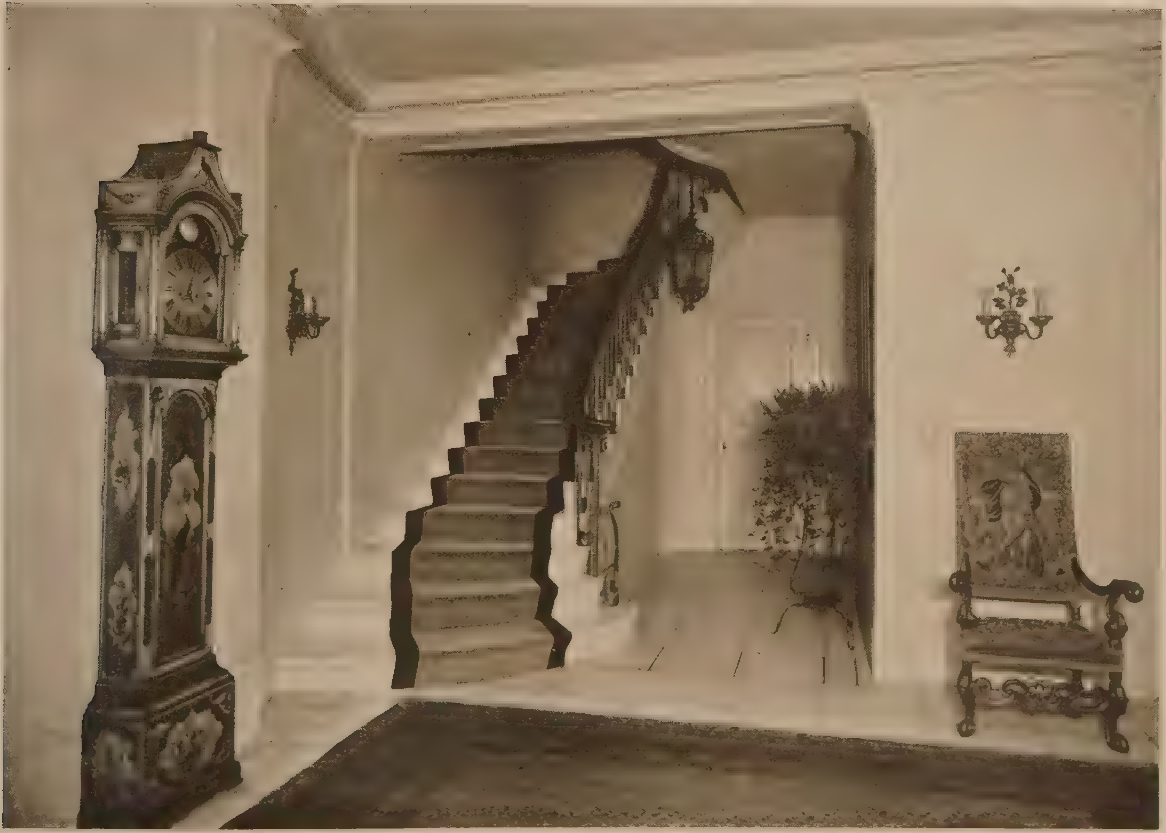


DRAWING-ROOM, HOUSE, G. PAGENSTECHER, 21 EAST 70TH STREET, NEW YORK.

Rogers & Haneman, Architects.

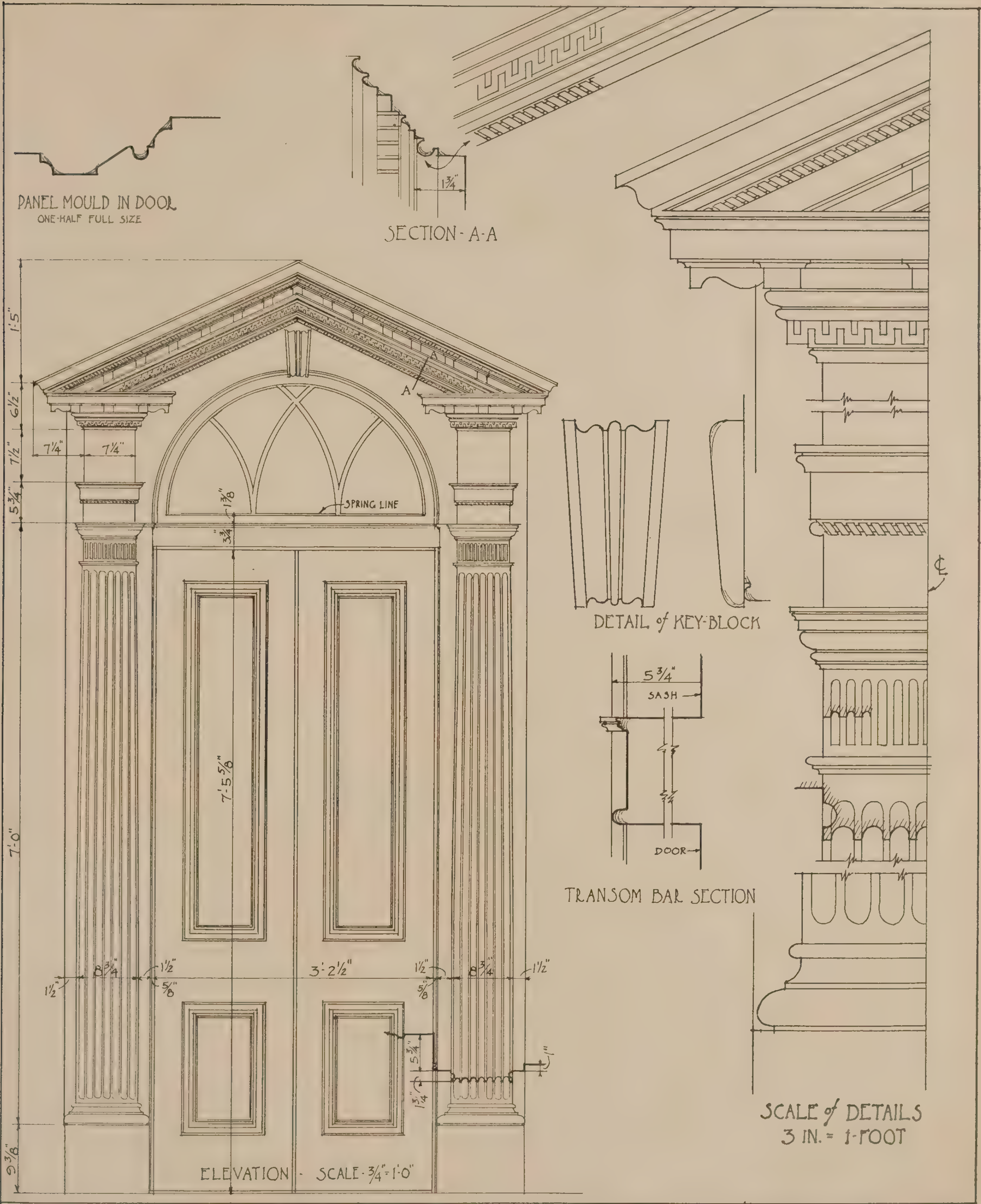


DINING-ROOM.



HALL AND STAIRCASE. Rogers & Haneman, Architects.

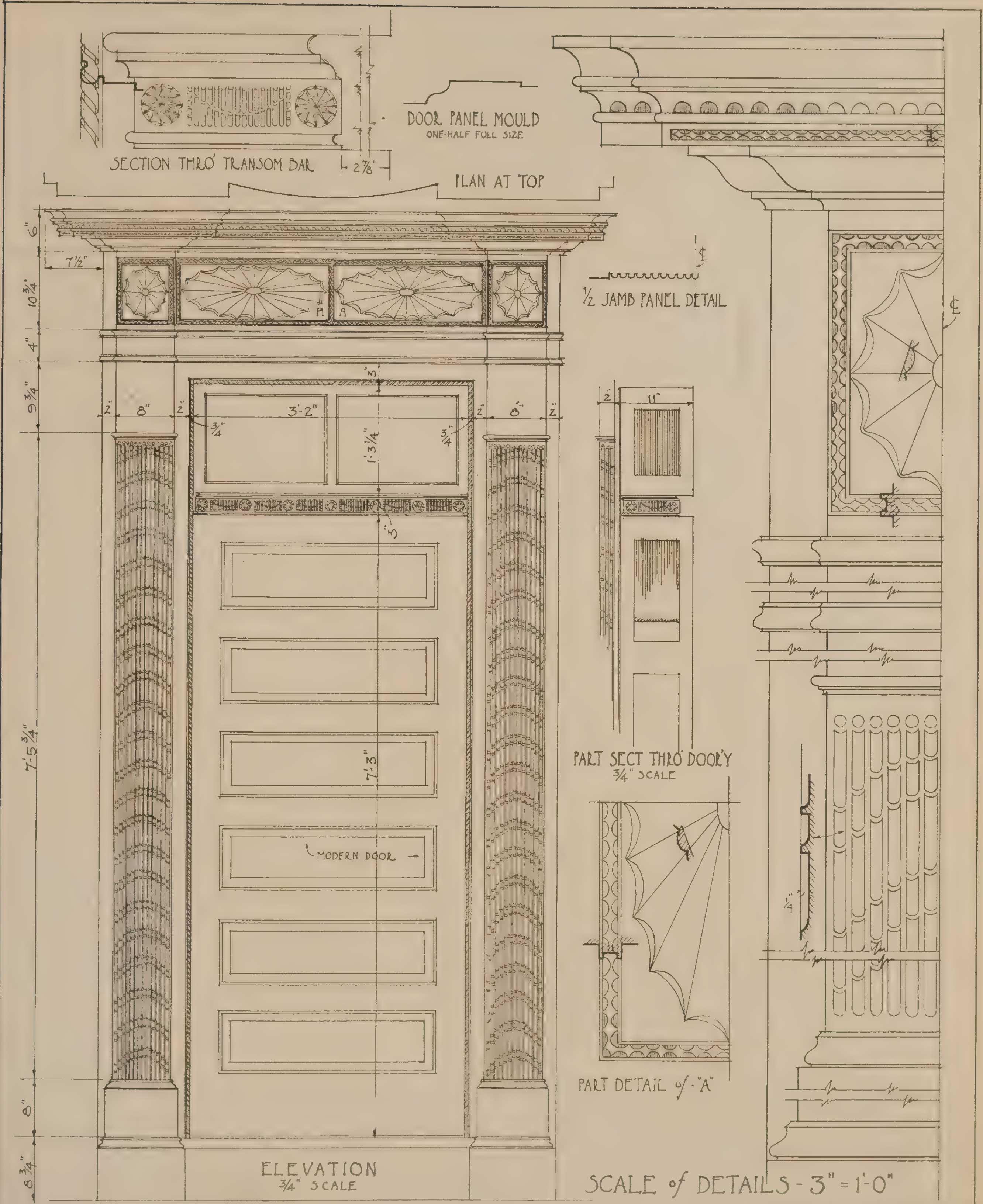
HOUSE, G. PAGENSTECHER, 21 EAST 70th STREET, NEW YORK.



COLONIAL ARCHITECTURE
of the
CAROLINAS

DOORWAY 55 CHURCH ST.,
DATE - ABOUT - 1800 CHARLESTON - S.C.

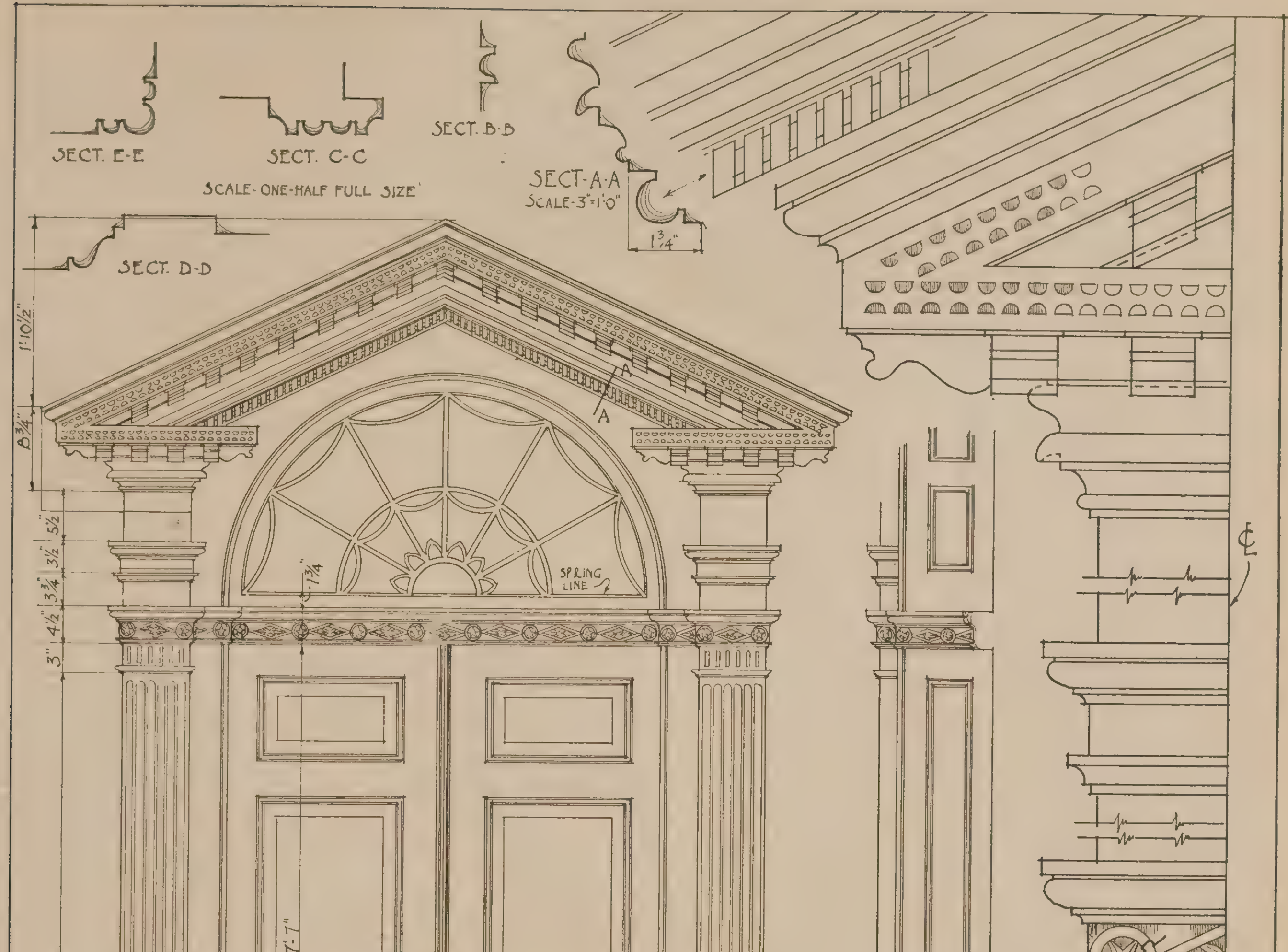
MEASURED & DRAWN
by
J. A. ALTSCHULER



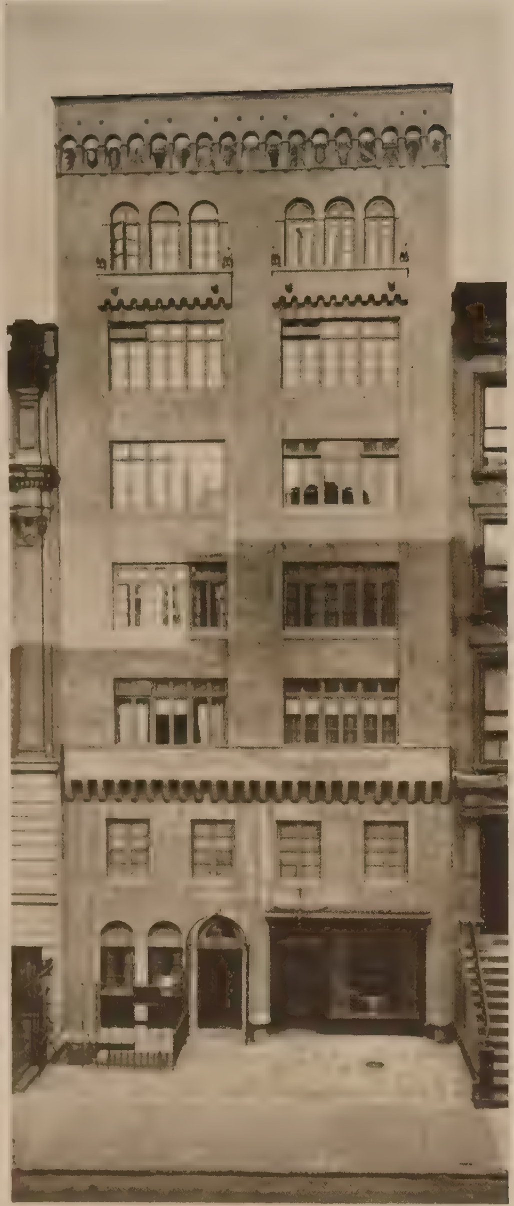
COLONIAL ARCHITECTURE
of the
CAROLINAS

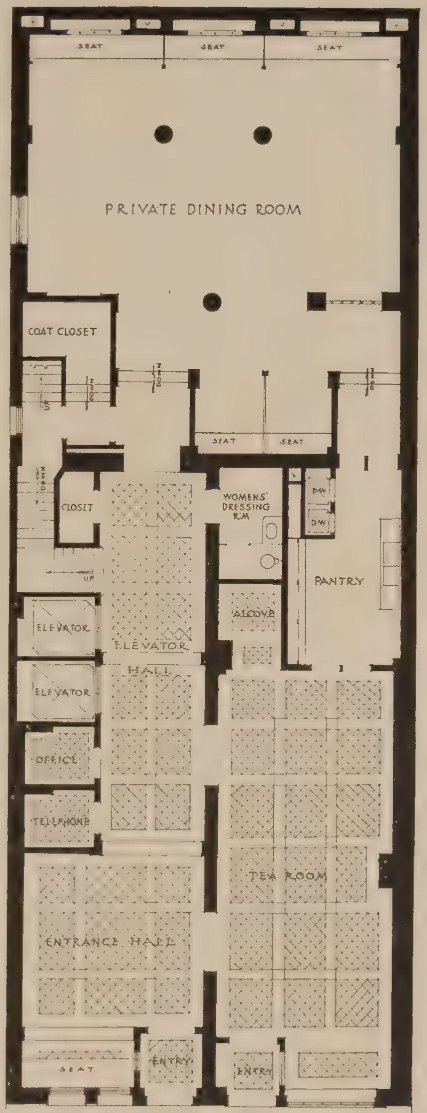
DOORWAY 301-EAST BAY ST., SOU.
DATE-ABOUT-1800 CHARLESTON-S.C.

MEASURED & DRAWN
by
J. A. ALTSCHULER

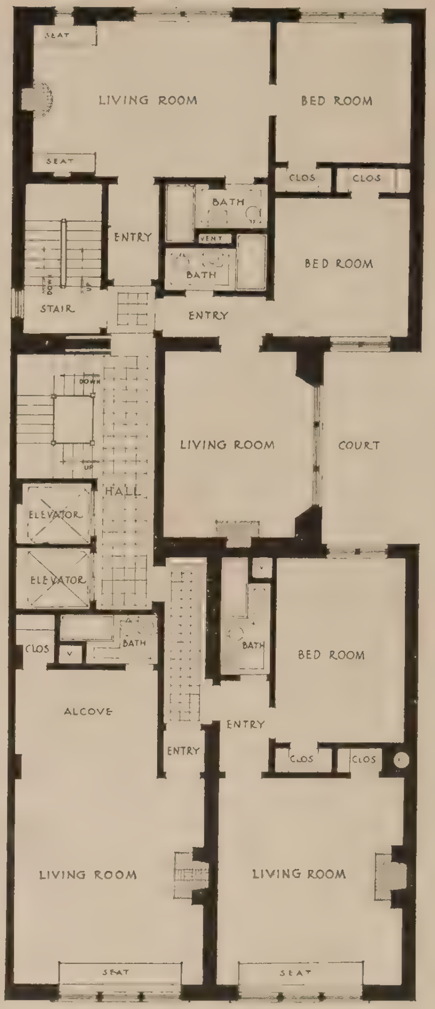


COLONIAL ARCHITECTURE of the CAROLINAS	DOORWAY DATE-ABOUT-1800	39-BAY ST, SOUTH CHARLESTON-S.C.	MEASURED & DRAWN by J.A. ALTSCHULER



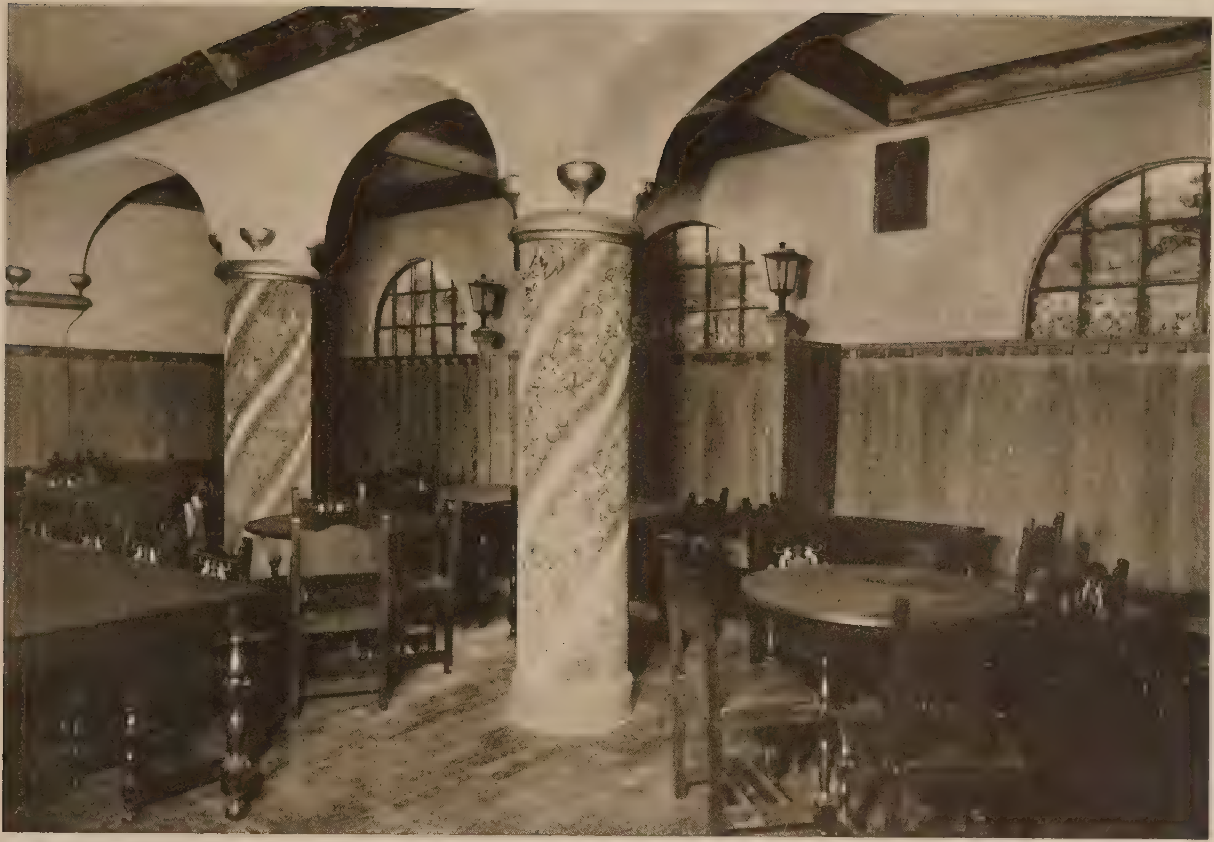


FIRST FLOOR

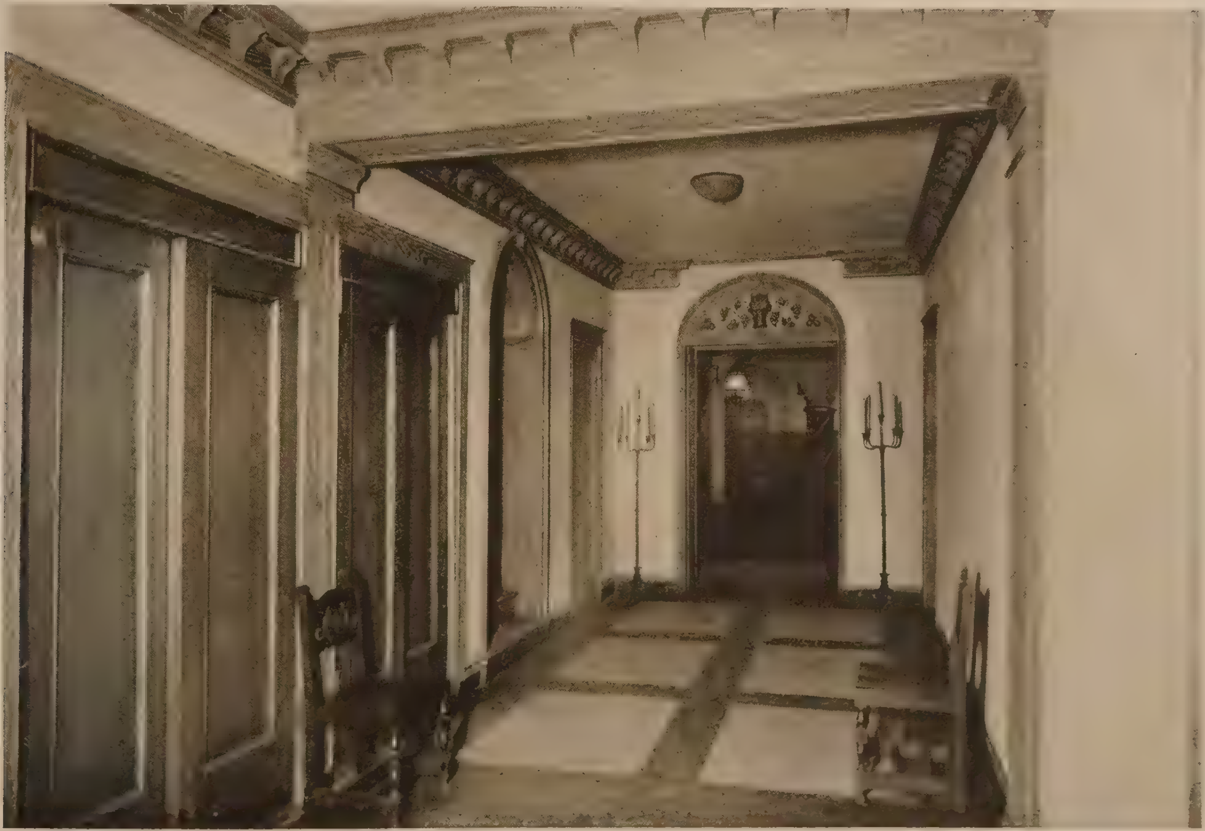


TYPICAL FLOOR

STUDIO APARTMENTS AND TEA ROOM, 23–25 WEST 51st STREET, NEW YORK (ALTERED BROWNSTONE FRONT). Frank Goodwillie, Wesley S. Bessell, Architects.



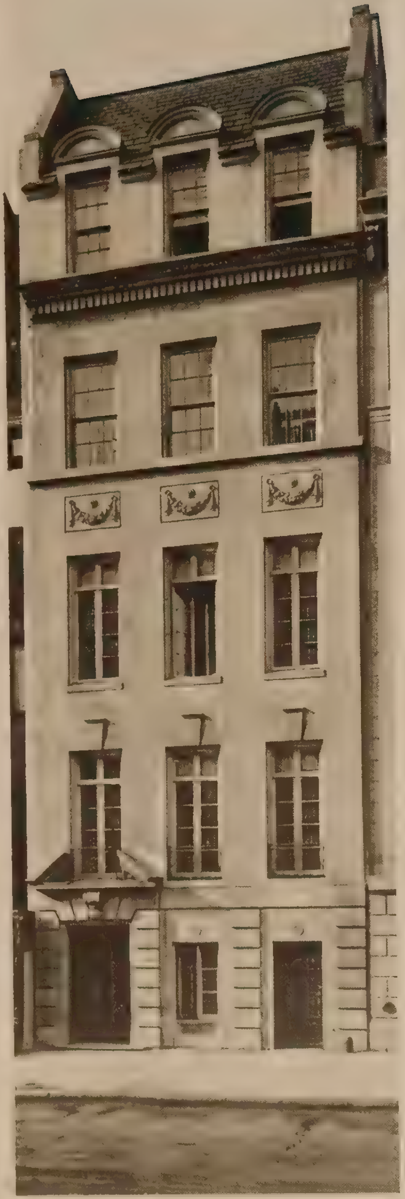
PRIVATE DINING-ROOM.

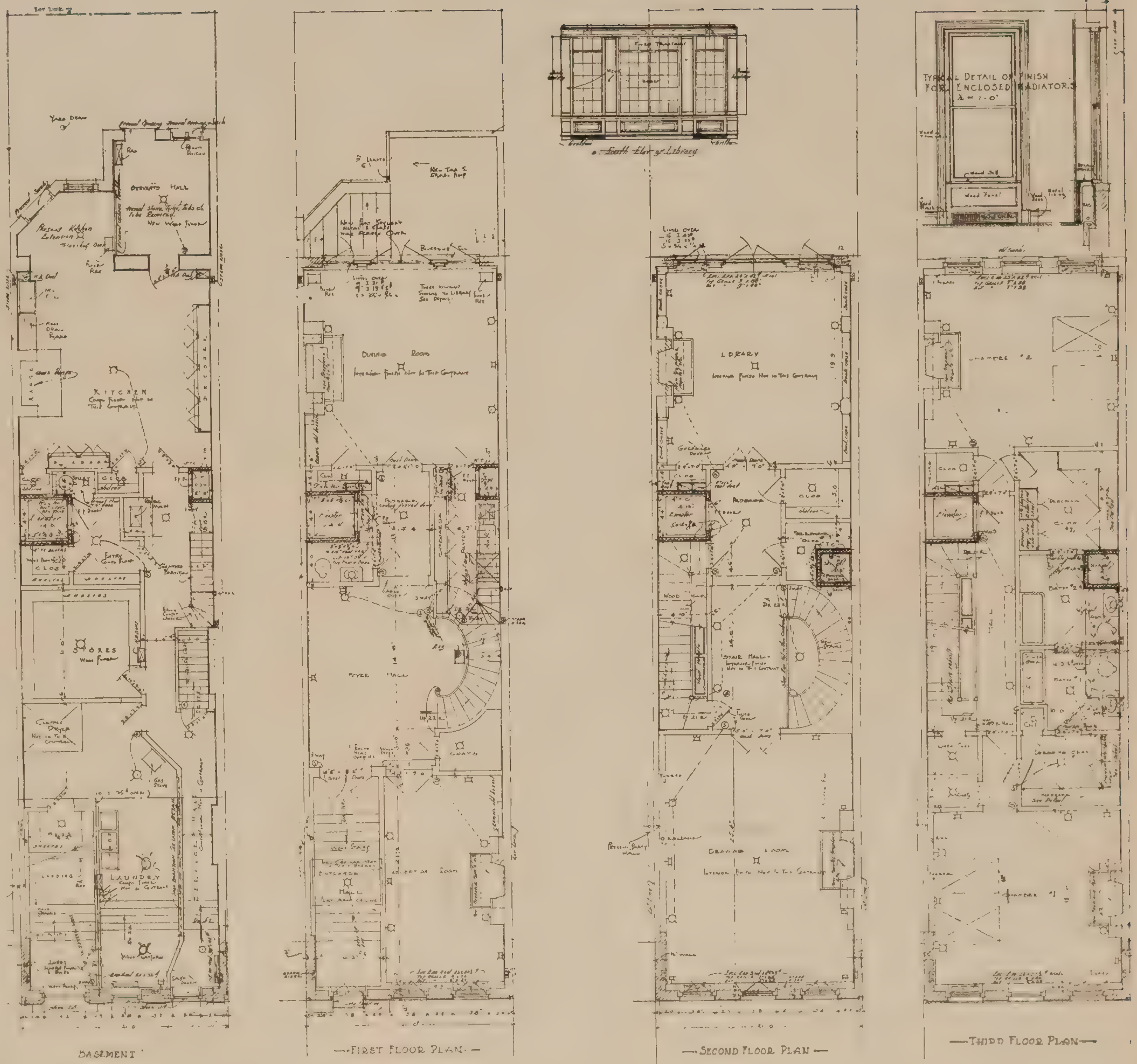


ELEVATOR HALL.

Frank Goodwillie, Wesley S. Bessell, Architects.

STUDIO APARTMENTS AND TEA-ROOM, 23-25 WEST 51st STREET, NEW YORK.

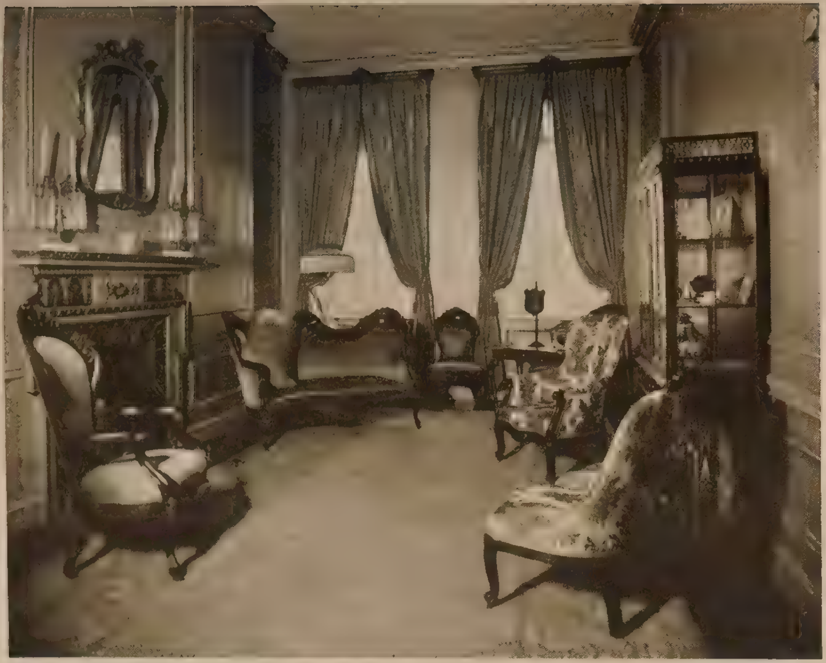




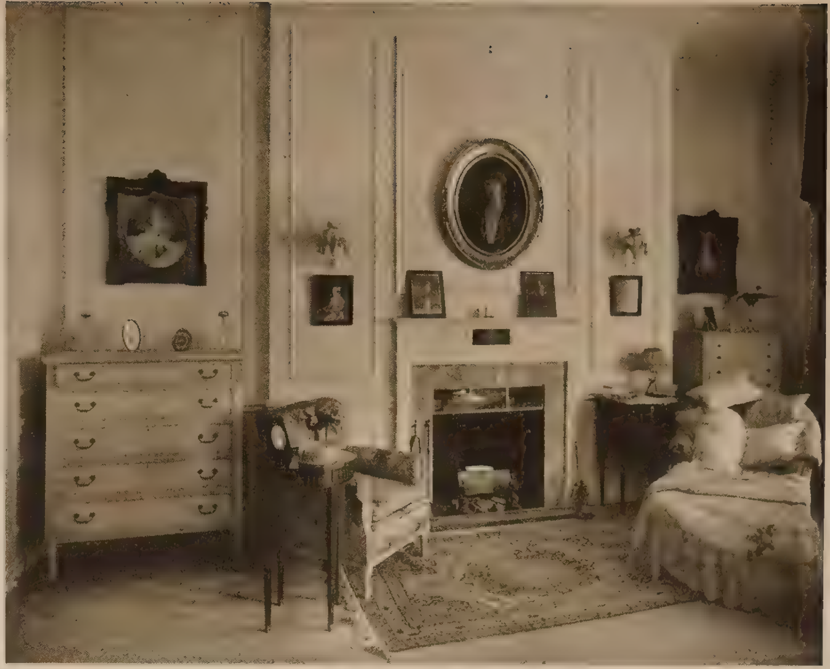
BASEMENT
—FIRST FLOOR PLAN—
—SECOND FLOOR PLAN—
—THIRD FLOOR PLAN—

HOUSE AND PLANS, E. G. CORNELL, 24 EAST 64TH STREET, NEW YORK.

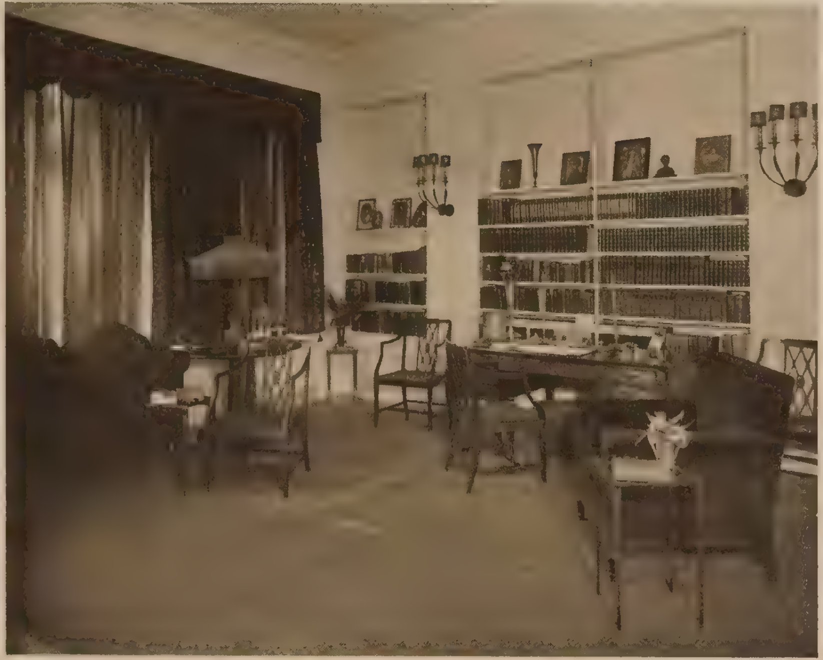
Mott B. Schmidt, Architect.



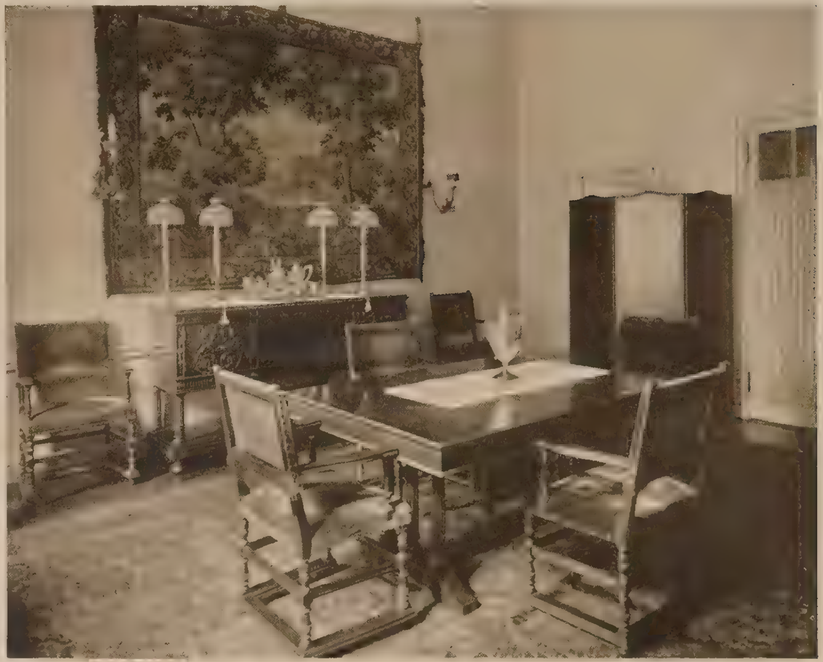
RECEPTION ROOM.



BOUDOIR.



LIBRARY.



DINING-ROOM.

Mott B. Schmidt, Architect.

HOUSE, E. G. CORNELL, 24 EAST 64TH STREET, NEW YORK.

The Home of E. G. Cornell

Mott B. Schmidt, Architect

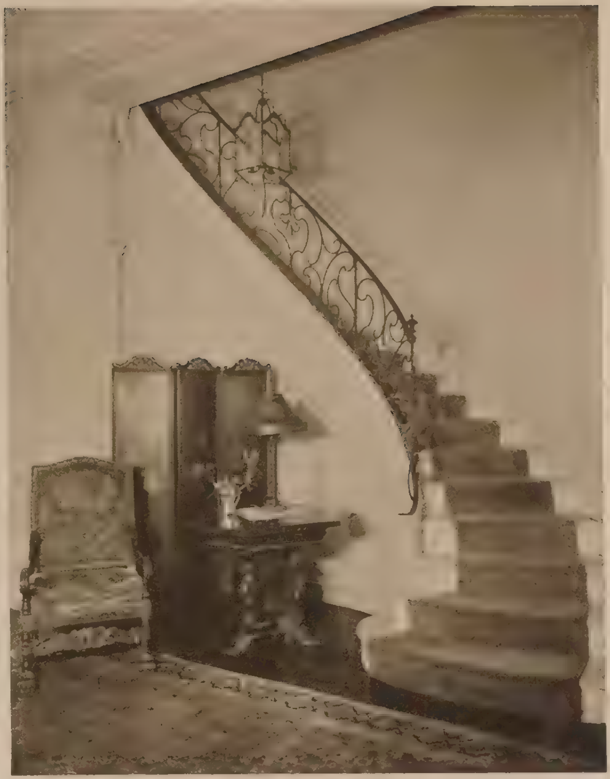
THE entrance at the street level has a door opening into the service-hall at the foot of the wide staircase which leads to this hall on the first floor. This hall has walls finished in warm ivory glaze. The finely balanced curve of the staircase and its wrought-iron balustrade are interesting.

The little reception-room opening from the stair-hall is of the Victorian period. The walls are glazed in putty tones with gray-green moulds, the rug is gray-green and the window draperies of gray-green taffeta topped by cornices of carved and gilded wood.

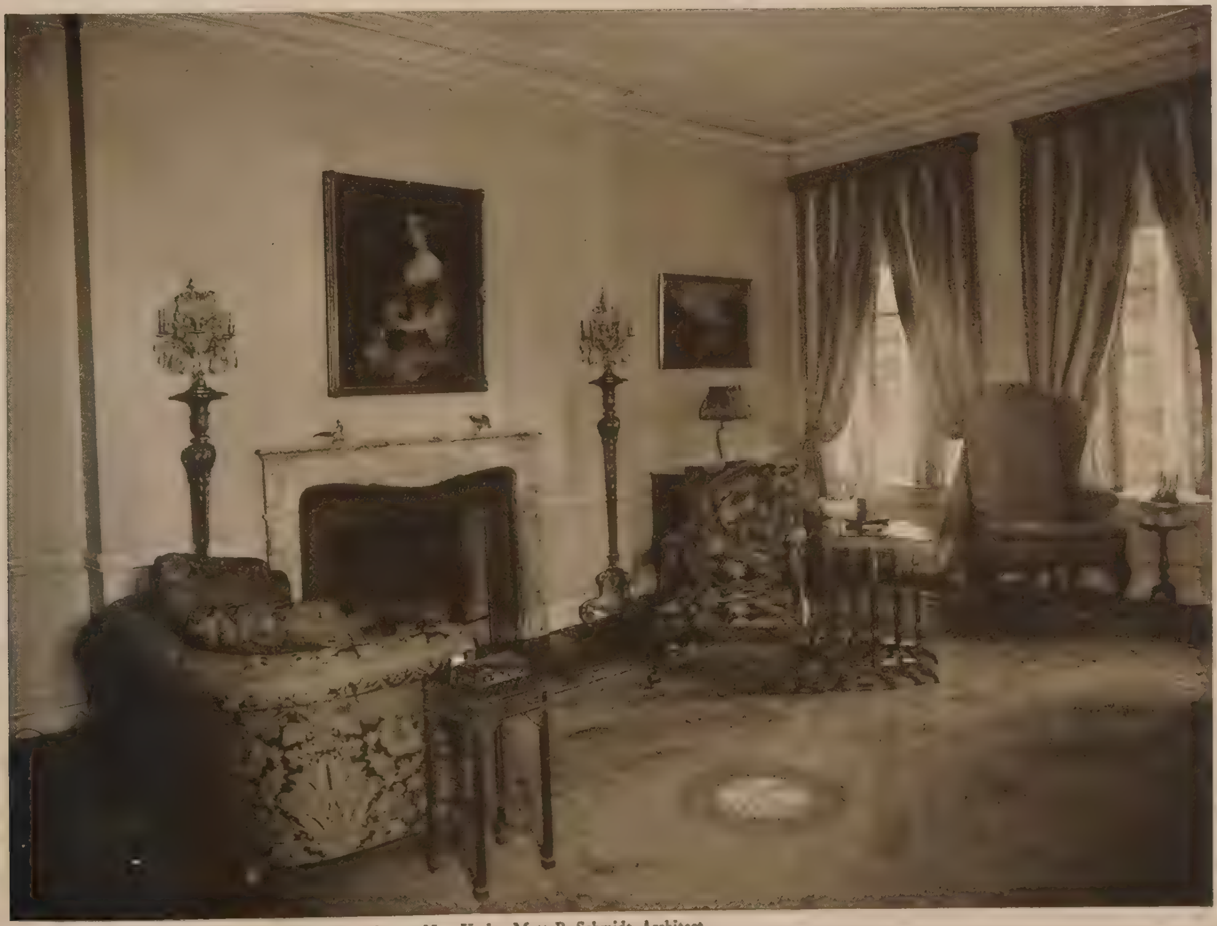
The drawing-room is Georgian in feeling. The walls are glazed in pale yellow and the antique Chinese rug has a deep yellow ground with figures in blues and rose. These colors are repeated in the striped satin draperies at the windows and in the coverings of the wing-chair and sofa.

In the dining-room soft rose-red tones predominate in the Oriental rug and the antique velvet chair coverings. The walls are of gray finished plaster; the tapestry in verdure colors with rose tones in the border. The walnut furniture is reproduced and adapted from antiques of François I days. The hand-made sideboard and chairs show the influence of the French Renaissance in the detail of the hand carving.

The library, flooded with sunlight from the many windows, has walls finished in ivory, a rug of old-gold tones and gold gauze-glass curtains. The mantel in this room is black marble reproduced from a design by Adam.



Entrance hall and staircase.



Drawing-room, house of E. G. Cornell, 24 East 64th Street, New York. Mott B. Schmidt, Architect.

"Battle of Westport." Mural decoration for the Missouri State Capitol. By N. C. Wyeth. Tracy and Swartwout, Architects.

The Fifty-Fourth Annual Convention of the American Institute of Architects at Washington

THE convention was held this year in the auditorium of the National Museum, perhaps better known as the Smithsonian Institution. From many points of view it was one of the most important meetings in the history of the Institute.

From President Kendall's address, a presiding officer with tact and graciousness in keeping with the ideals of the profession that he so ably represents, we gather that there is to be no letting down of the high standards that have always governed the members of the Institute. There was never a time when these standards were more needed.

> I record with pride and appreciation that the topics we discussed and the things that interested you were the dignity and worth of our profession and the opportunities for public service which are offering themselves to us in this present time.
>
> I saw architects spending their money and their time, using their abilities to the utmost, that the man with little money may have a well-planned, thoroughly built home within his means.
>
> I have seen competitive designs by hundreds sent in for nominal or no compensation, to the same ends.
>
> Men of eminent ability have gone into public service in their cities and towns, have assumed professorships in our colleges that meant living upon a tithe of what their skill, exercised in architectural practice, would have earned for them.
>
> Our Boards have been officered by architects who gave not only their splendid abilities, but their time, and paid their own expenses, amounting to many hundred dollars, for what?—for their own gain or reputation? No, but in order that a great service to the Working Man, to the employees, or to the public might be done—and done well—and fair play and good faith between men and men might prevail.
>
> In one Western city some of the architects are seeking hiding-places and planning ruses, lest an appreciative public force them into the mayor's offices.
>
> These conditions I find, in greater or less measure, from Atlantic to Pacific, and it is, I believe, a sign of an appreciation which, although tardy and long delayed, is coming; and which we, as trained and efficient men, may receive, if we will but show ourselves worthy and willing to make the necessary sacrifices.
>
> These things, however, are not to be attained simply by the practice of architecture. There must be joined thereto a sense of our responsibility to our communities and to the people among whom we live. To some of us it will mean the nation, to others our State, to many only our city or our town. According to our ability and our opportunity will the requirement be and the responsibility.
>
> We are facing a future for the profession, whose opportunities are almost unlimited. The country faces a need for buildings, unprecedented in amount. Housing and business make demands such as we have never known before and will not see again, unless, which God prevent, another World War shall again paralyze all beneficial enterprise.
>
> Grateful communities all over the land desire to honor their dead and commemorate the service of those who dared all and returned. All that art can command, that skill can combine, that good design and inspiration can produce, is demanded for these symbols of gratitude. Who shall produce them if we do not?
>
> I know of a combination of stone-cutters, such as years ago would have been ready to furnish volunteers, carved at parade rest, full life-size, in unlimited numbers, which in these days turns to the Institute and organizes a well-conducted, properly paid competition (if any competition can be called well paid) in order to set up in their city a dignified and artistic monument to the soldiers of that place.
>
> Commissions charged with erecting great memorials, costing millions, write to ask the Institute to advise them how to select suitably qualified men to design and supervise their buildings.
>
> Who, to-day, plans to produce a home, a worthy business building, a public building of almost any grade, without the advice and assistance of an architect? We can hardly realize that a different state of affairs once prevailed, when, to quote one of the elders of our profession, Mr. George C. Mason, who has written most interestingly of the early days of the profession in this country, "the prospective employer applied to a builder for advice as to who was the best architect for him to employ," or, ignoring the architect altogether, commissioned the builder to proceed without an architect. . . .
>
> We welcome these new members, we are proud and gratified to have them with us, and we hope for a still further increase in the future. With from ten to fifteen thousand persons claiming to be architects in the

country, we must have a larger membership if we are to be a truly representative body.

Our standards, our ideals, are to-day the recognized standards for the profession, and we ought to be able to enroll those who believe as we do in our fellowship.

There were many important matters discussed, and among them, from our point of view, none were more vital either to architects themselves or the country at large than the matter of small houses. The Architects' Small House Service Bureau of Minnesota, Incorporated, has led the way, and their book and the exhibition of elevations and plans at the convention made an encouraging and significant exhibit.

THE SMALL-HOUSE PROBLEM

The small-house problem covers a wide territory, both physically and geographically. It should cover houses of from two or three to six primary rooms, of one or two stories, with or without basement, for all sorts of soil and climatic conditions. Therefore a competition covering only two or three conditions could, if it were otherwise advisable, help but a small portion of the desired goal.

The solution for the small-house problem and all the difficulties in connection therewith as cited up to this point is found, I believe, in The Architects' Small House Service Bureau, as indorsed and sponsored by the American Institute of Architects. It provides complete architectural service for the home builder at a price he can afford to pay, and becomes valuable because it costs something. It also pays the architect a good return for the time and labor he expends on the work and so becomes of lasting interest to him. It provides the local touch and knowledge necessary for the greatest economy in building. It is a perfectly simple solution of the business problem in connection with getting out ready-made plans by professionally trained men. It brings the small builder in direct communication with the architect, and by so doing will "educate the public" by actually doing the work and showing the public that the profession is all that it knows it is, but has not yet been able to demonstrate.

To make good on any such programme or claim as mentioned above, the Architects' Small House Service Bureau must give not only a good service, but one such as has never been dreamed of before. It must produce plans and details that have the minimum of waste in them. It must use the stock forms of millwork that are on the market and must improve these as time goes on. It must provide accurate quantity surveys to enable costs to be arrived at easily. It must aid in improving the ideals of the home owners of these United States as time goes on. It must be of value in every conceivable way that an architect can and should be for his clients and his community. It must simplify the home-building problems so that home building will again take the place in this country that it deserves. It must help in all the processes of building a home from the first inception of the idea of a home to the choosing of the lot of ground, the financing, the selection of the plan, the choosing of the contractor, the beautifying of the grounds. It can and should be a great factor in making this a homogeneous home-growing nation.

That this is the solution of the small-house problem has been very clearly demonstrated by The Architects' Small House Service Bureau of Minnesota. However, unless we go further the attempt will ultimately fail. No purely local group of architects can solve the puzzle for the entire country. They cannot know and meet conditions over a country so vast as the United States. So has arisen, according to the programme laid out by the committee on small houses one year ago, The Architects' Small House Service Bureau of the United States, Incorporated. The Minnesota Bureau has reorganized itself, revised its certificate of incorporation and its by-laws and become The Architects' Small House Service Bureau Northwestern Division, Incorporated. All its rights and title to the name, "The Architects' Small House Service Bureau," to the trade-mark, and to the entire idea have been turned over to the U. S. Bureau, which in turn has licensed the Northwestern Division as a Regional Bureau for carrying on the work.

In drawing up the certificate of incorporation of the Central or National Bureau, The Architects' Small House Service Bureau of the United States, every precaution has been taken to prevent the possibility of its ever becoming dominated or controlled by any section of the country or by any of its Regional Bureaus. It must of necessity be always impartial and national. Therefore, it has been made possible for the American Institute of Architects, is the one great national impartial body of architects, to entirely control the policy and actions of the Bureau at any time it may desire without being in the slightest degree implicated financially. This matter is thoroughly covered in the certificate of incorporation of the U. S. Bureau, copy of which is attached.

A Standard certificate of incorporation based on that of the Northwestern Division, carefully drawn up after two years of actual experience in the carrying on of Bureau work, is also attached. It will be necessary for each Regional Bureau to employ the best counsel available to see that nothing in its charter is in discord with the laws of its particular State. Before incorporating, its final form of certificate must be submitted to the U. S. Bureau for approval.

The national Bureau, called the U. S. Bureau, to distinguish it from the Regional Bureaus in this report, will have no actual work of production of plans to carry out. Its part in the work will be purely that of an executive and guide for the Regional Bureaus. All arrangements for sales on a national basis, for books of plans for national trade organizations, for national publicity, etc., will be made to the U. S. Bureau. It will assign the work to the different Bureaus, will see that no duplications are made, that everything is thoroughly standardized and up to the standard of the Bureau Service.

WAR MEMORIALS

Acting within the scope of the instructions of the Board of Directors, as well as within the resources at the command of your Committee, it has throughout the past year rendered such advisory service to promoters of memorial projects as occasion offered. In the majority of instances the inquiries that have come to your Committee have included requests for designs or illustrations suggesting typical solutions of memorial problems, and in response your Committee has forwarded the literature issued by other organizations as directed by the Board of Directors in the absence of similar publications on the part of the Institute.

The conditions which have held in abeyance many building operations have in like manner prevented the development and realization of memorial projects, besides which your Committee has had occasion to note an abatement of popular interest in the subject. This apparent recession of the wave of enthusiasm that followed the armistice, and the unfavorable building conditions have had the advantage at least of diminishing the number of hastily considered memorial structures, and at the same time have extended the opportunity for more careful study of the many memorials that are still under serious consideration.

In the opinion of your Committee the activities of the Institute and other associations in this field have been of far-reaching educational value, and it is of interest to note that to some extent at least this has reacted upon the manufacturers of stereotyped forms of memorial works toward the betterment of designs offered where not already influenced or controlled by municipal art juries and commissions where such exist.

STATE SOCIETIES

The qualifications for membership in State Societies are more liberal than in the Institute. In States having Registration Laws the usual requirement is that an applicant be a Registered or Licensed Architect engaged in the honorable practice of his profession, although in certain States Registration is the only requirement. The method of election and requirements for admission are simplified.

The Principles of Practice and Canons of Ethics adopted by State Societies are variable, although many have adopted verbatim the documents formulated by the Institute.

The activities of State Societies are confined largely to questions of local concern affecting the practice of architecture in the particular locality; to the education of their own members in ethical and practical subjects; to matters of Legislation, Law enforcement and business, and to informing the Public upon the value of architectural service, to the individual and the community.

In States where State Societies have been in existence long enough to make their influence felt it seems evident that not only is the relationship between members of the profession more friendly and their actions toward one another more ethical, but also that the general quality of work produced by architects' offices has been higher, with a consequent improvement in the character of the buildings produced. Laws governing the construction and sanitation of buildings seem to have been more intelligently formulated and more closely observed.

It seems evident that in practically all but one State where Chapters of the Institute and State Societies exist that a helpful spirit of co-operation prevails and that members of Chapters are, in large numbers, also members of the State Society, and that these members take an active interest in the administration of the Society.

Your Committee has collected data showing the existence of sixteen State Societies having a reported membership of approximately two thousand (2,000). It is possible that other Societies exist that may not have come to the attention of this Committee.

EDUCATION

The accepted period of the college course is four years, and it is erroneously thought by the general public that an architect may be educated in this period. It is this prejudice that must be dispelled, for it is now agreed by both the practising and the teaching members of our profession that this period is not adequate. How can this best be done?

In the architectural schools generally it is customary to offer two options, one in design and one in construction. Does not this tend to create the impression that architecture is something apart from construction?

Is there anything in the construction option that should not be regarded as essential for the Master's Degree in architecture?

The Committee is convinced that standardization of teaching in architecture is not to be desired; each school, each master must be free. There are, however, certain principles that may be discussed with advantage.

It has been found that the uniformity and sequence of programmes as issued by the Beaux Arts Institute of Design has the great advantage of bringing a great number of students into competition on the same problem and enabling them to see in one exhibition a great variety of solutions made under various masters. Could the programmes used by the different schools be the same?

In the judgment of school problems, a stable basis of judgment is to be desired, and yet the usual method of making up the jury from the members of the faculty alone is perhaps not quite right. Can a fresh point of view be satisfactorily introduced into the judgments by inviting practising architects to act with the regular faculty.

In this connection, concerning the drawings submitted for judgment, would it be well to adopt the principle that all drawings must in their entirety be made and rendered by the students?

The Committee has considered the various methods of instruction in the important subject of office practice. Practical experience in an office is often not easy to secure for all the students. This is essentially a subject in which the practitioner can aid the teacher. The Committee will therefore be glad to receive constructive suggestions.

As a result of the referendum to Chapters the Committee received reports from eight Chapters which may be briefly summarized as follows:

CONTRACTS

All but one opposed any increase in the basic rate, including the Chapter that made the proposal last year. Two Chapters opposed any change in the schedule at all. One Chapter suggested the need of a circular giving "a complete schedule of fees based upon the 6 per cent minimum standard rate and covering full service, partial service, and special service." One Chapter proposed provision for a retainer fee, making the basic rate for alterations 10 per cent, and some further less important changes. Three Chapters favored the two principal changes regarding inclusion of engineering services, and service as a construction manager.

FIRE PREVENTION

We suggest that architects generally interest themselves in assisting in the securing of needed amendments to existing building codes. We are of the opinion that no greater field of service exists than the stimulation of intelligent interest and effort looking toward the standardization of building codes. This problem requires a correct statement of principles that may be most properly made by the architectural profession.

We believe that now is the proper time to revise building codes generally, and remove from them all unnecessary restrictive requirements. For example, the building codes of most large cities at present do not permit of the use of the newly developed hollow brick wall, the scientific use of hollow tile, the proper use of the concrete building block and other types of construction which have been recently developed and which, if permitted, will result in quite materially reducing the cost of construction of the so urgently needed housing.

Attempts have been made in some cities to very greatly reduce the fire limits so as to permit the construction of the most flimsy forms of buildings. If building codes were properly amended so as to permit of the proper use of fireproof and fire-resisting materials, small houses may be constructed with walls of fireproof or fire-resisting materials at approximately the cost of timber and lumber.

Your committee is of the belief that, if architects generally will actively interest themselves in these matters, that not only will much good be accomplished by the securing of cheaper construction that will not in any way increase the fire hazard or modify the sanitary features of buildings, but will have a tendency to stimulate that class of construction which is now so urgently needed.

COMMUNITY PLANNING

It may be permitted to direct attention to a matter of very special interest to architects, and which seems to be well proven by this town plan; that apart from a matter of ethics or economics the designer must be unhandicapped by excessive land values if he is to even partially succeed in his task. The control of land entails the choice of site and surroundings and when these things are the tools and not the master, the spirit of creation is set free. It is evident that when the major questions are decided by those whose conception of architecture is that of a more or less important cog in the machinery of investment the craft of building cannot rise above mediocrity. Furthermore, that unless the art of community planning reposes upon the foundation of workable economics it can be nothing but a sounding phrase.

In the past city planners have paid too much attention to psychology, conforming their reports to the supposed prejudgment of their clients. They have reasoned that self-stultification is justifiable if some small good can result. They forget that the first duty of the professional man is to tell the truth to those coming to him for advice, unmindful of the consequences which such frankness might have to himself.

Regulations for the simultaneous employment of architects by one client:

COMPETITIONS

"The Institute recognizes the right of an owner to purchase unlimited professional service on a basis of adequate remuneration and control. To allow Architects to render such service while safeguarding the profession from the admitted evils of unregulated or ill-regulated competitions, the Institute has adopted the following regulations:

"In the furtherance of desirable publicity, no Architect shall submit sketches or render service until he has procured from the owner or his duly authorized representative a statement either that he is the only Architect being employed for this service, or if another is being employed, the terms of that Architect's employment, which terms must be specific, inclusive, and adequate.

"In the event that an Architect is being already employed and the owner wishes to employ still another on the same project, the Architect requested to render such additional service must at once notify in writing the President of the Chapter. He shall state the terms of his employment by the owner and the name of the other Architect or Architects being employed on the project.

"The terms of employment of all Architects employed simultaneously on a given project must be at least as favorable to those who are engaged subsequently as to those originally engaged.

"It shall be the duty of the President at once to notify the Architect first employed by the owner and all others simultaneously employed by him as to the names of those employed and the terms of their service.

"Violations of these regulations in any essential particular may be reported to the President as unprofessional conduct."

REGISTRATION LAWS

Any citizen of the United States or any person who has declared his (or her) intention of becoming such citizen, being at least twenty-one years of age and of good moral character, may apply for a certificate of registration or for such examination as shall be requisite for such certification under this Act: but before receiving such certificate this applicant shall submit satisfactory evidences of having completed the course in a high school or the equivalent thereof, as may be approved by the American Institute of Architects, and of having subsequently thereto completed such courses in mathematics, history, and languages as may be prescribed by the Board of Examiners and Registration of Architects. In lieu of such examination the Board may accept satisfactory diplomas or certificates, from institutions approved by the Board, covering the course of subject-matter prescribed for examination.

(Note.—Inasmuch as State laws may vest the power of establishing standards of education in the Board of Examiners or in a State Department of Education, and that the provision that the standards of the Institute shall govern may make reciprocity difficult or impossible, the nominating in the law of such standards of education requires the most careful consideration.)

Section 21: Upon complying with the above requirements, the applicant shall satisfactorily pass an examination in such technical and professional subjects as shall be prescribed by the Board of Examiners and Registration of Architects. The Board may, in lieu of examination, accept satisfactory evidence of any one of the qualifications set forth under subdivisions (a) and (b) of this Section.

(a) A diploma of graduation or satisfactory certificate from an architectural college or school that he or she has completed a technical course approved by the American Institute of Architects, together with and subsequent thereto of at least three years' satisfactory experience in the office or offices of a reputable Architect or Architects.

The Board may require applicants under this subdivision to furnish satisfactory evidence of knowledge of professional practice.

(b) Registration or certification as an Architect in another State or country, where the qualifications prescribed at the time of such registration or certification were equal to those prescribed in this State at date of application.

(Note.—If these laws are to have any material value, it is important that registration be based on a high standard of education, and that registered Architects be competent.)

The principal object of the Law is to give the Board of Examiners power to be certain that every man who uses the title of "Architect" is well qualified.

The standard of technical education for Architects approved by the American Institute of Architects is the only one which might be looked to as binding upon all States and there is no duty which the Institute has to perform which is more important in fixing and improving the standard of education of the architectural profession. Such standards will change from time to time and the widest kind of flexibility embodied in a statute will be the most desirable. Any absolute standard, even the most advanced, would soon become obsolete.

Among the especially interesting and constructive papers were "The Fundamentals of Town Planning," by Mr. John I. Bright, and "Planning High Buildings for Narrow Streets," by Mr. Harvey W. Corbett. Mr. Bright referred to the differing problems presented, to the rent question, site value in relation to population, the necessity for control of boosting methods, regulation of areas with regard to light and air, traffic control, etc.

With diagrams and a map of Philadelphia he gave an analysis of existing conditions and told of ways that the city might be improved to meet modern conditions.

> The only question that I could ask is: "Is it worth while?" If it is worth while, why can we not do it? Have we arrived at the point in our civilization where we deem a thing worth while but we say we cannot do it because somebody has got to make some money; we would like to, it is worth while, we see the city is choking to death; people are losing more money every year by interruption of traffic; the costs are mounting; the land values are going out of sight; the whole thing is becoming a nightmare and yet we cannot do it because—well, our civilization has not found the answer—unwilling to disturb the present economic system. If that is so, all right; let us accept that and let us go on as we are now going on; but if we want this it is quite possible that we could do it.

Mr. Corbett, one of the architects of the now famous and beautiful Bush Building on Forty-second Street, New York, said:

> I was somewhat worried when I was given this subject for discussion, "Planning High Buildings for Narrow Streets." I was afraid it might be turned into the form of a question: "What shall be done to an architect who plans high buildings on narrow streets?" [Laughter.] I was afraid I might be sentenced to a life of hard labor in the lower story of one of these high buildings, where sunshine never by any chance penetrates and there is no such thing as natural light.
>
> Architecture, we are told, is an expression always of the people of any given period. I sometimes wonder if our present New York architecture is an expression of the New York people. Certainly, as you come up the Bay, especially as you come in a steamer from the other side, and get your first view of New York, it is an impressive and imposing sight. I think that probably the American people are impressive and imposing people.
>
> But as you get farther up the river and get a side view on New York, there seems to be a certain amount of jazz in outline, and I am afraid that if you get a side view of the New York people you find the same amount of jazz. [Laughter.]
>
> Perhaps the most characteristic feature of the American people is given in that old-fashioned expression of "putting up a bold front." We, as architects, do a great deal of that. We put up bold fronts. We do not put up sides and backs and tops to go along with those bold fronts. [Applause and laughter.]
>
> A foreign architect whom I asked once to give me an opinion of his visit to New York as concisely as he could, said: "Streets without end. Fronts without sides. Signs. Pent-houses and tanks." [Laughter.]
>
> Now, carrying this idea further, of architecture as an expression of a people, I think that our present architecture is a very clear-cut expression of our present democracy. It is a democracy in which there is so much freedom that every man is free to do exactly as he pleases, without the slightest regard to his neighbors; and the conditions under that form of democracy have been carried to such an extent in New York City that we have been obliged to create a law making it impossible for that kind of thing to continue.

He made interesting comment on the new law, and of the effect of the set-back on new construction. His talk was illustrated with examples of our towers of business. Mr. Fenner remarked that the New York law was not all they would like it to be, but was perhaps the best they could get.

Mr. Boring's remarks on his view of Washington from the Capitol should bear fruit:

> When I first came down to Washington on Monday I took the opportunity to go to the Capitol to see the wonderful view of the Monuments to Washington, to Grant, and to Lincoln. I got upon the terrace, the highest point. I could see the back of Grant's hat; I could see two smoke-stacks equidistant on the axis, and between that the Washington monument; but I could not see any way whatever to get to the Lincoln monument.
>
> Now, I believe it will come; we are going to have that avenue opened and clean out those greenhouses and those other things that are in the road; but it has not come soon enough. What I should like to see is for all of you architects who are going to go from here out through the country and spread these ideas, to try to impress upon your men that you send to Washington the necessity of carrying out that great plan which was the motive, or at least the first general enthusiasm, aroused for this idea. [Applause.]

Two talks illustrated with lantern slides of more than ordinary interest were Mr. Klauder's, on "Recent American Collegiate Architecture," and Mr. Howe's, on "The Minor Architecture of France."

Mr. Robert D. Kohn read a valuable report on "The Congress of the Building and Construction Industry," and Mr. Ernest J. Russell the report on "The National Board for Jurisdictional Awards."

On the evening of May 12 there was a formal opening of the National Architectural Exhibition, showing representative work by various chapters of the institute from all over the country.

The exhibition was one of great interest. Gold medals were awarded to Reginald D. Johnson for the best residence, to Cram, Goodhue & Ferguson for the best church, St. Thomas's, New York, and to George C. Nimmons, of Chicago, for the best industrial building.

At the session, later in the evening, there was an address by Herbert Hoover, in which he gave his views concerning the federal attitude toward wage and price fixing.

> Attempts to settle wages or labor disputes on a national basis, the secretary declared, usually result disastrously for labor and industry alike. Conspiracies to maintain prices and corrupt bargains with labor he indicated as something to be dealt with by "continuous and vigorous action by the authorities. There will be no restoration of confidence in industry until this is accomplished," said the secretary.
>
> He further outlined the readjustment of the building industry along the lines of changes in governmental methods of dealing with industry.
>
> "The excess profits tax creates speculation and waste, blockades free dealing in property, and the higher ranges of the income tax drive capital out of building investments because of our national failure to secure income taxation of State, municipal, and national securities," he said.
>
> To effect helpful financial changes the secretary urged amendment of the banking laws to permit national banks to apply savings accounts to mortgage purposes, and the larger application of insurance money to mortgage purposes.
>
> The establishment of a department of public works to bring about uniformity of purchasing supplies and materials for the construction and upkeep of government buildings throughout the country occupied a prominent place in the discussion throughout the day, and a resolution to this effect was adopted.

ELECTION OF OFFICERS

> The present officers, with the exception of Robert D. Kohn, of New York, who was nominated for second vice-president, were re-elected. Mr. Kohn succeeds Charles A. Favrot, of Louisiana. Officers re-elected were Henry H. Kendall, president; William B. Faville, first vice-president; William Stanley Parker, secretary, and D. Everett Waid, treasurer. Three new directors were elected: L. P. Wheat, of Washington; Charles A. Favrot, of New Orleans, and George E. Bergstrom, of Los Angeles, Cal.

The convention closed with a dinner at the Chevy Chase Club.

Altered Brownstone

By Wesley Sherwood Bessell

Frank Goodwillie—Wesley S. Bessell, Architects

[illegible]

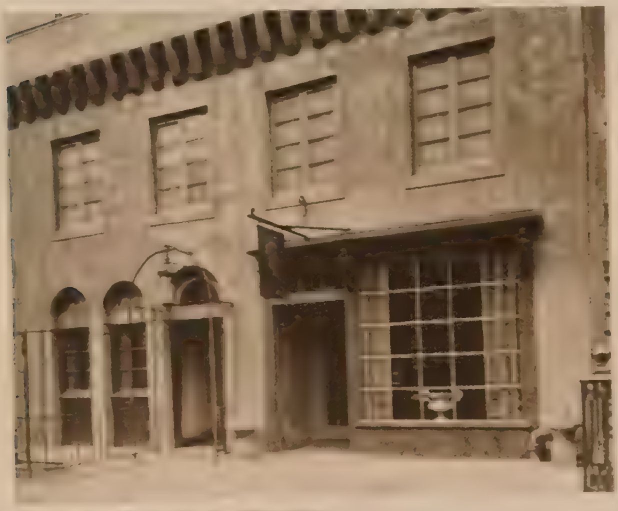
YEARS back New York City was infested with a blight, now known as the "brownstone era." This blight has been handed down to the present generation of architects as an heirloom. It has existed as a nightmare to the profession who have had to face these monotonous rows of brownstone buildings. During the past few years, however, we have seen that these apparent obstructions in the pathway of progress presented interesting problems to be solved in the way of reconstruction and rehabilitation of these monotonous fronts. The problem has opened up new avenues for thought and evolved from nonentity an asset of a truly beneficial character. Many of our side-streets are being transformed into the category of interest and beauty. The pressing need for new homes has made opportunities for the architects to rid us of the brownstone monotony and give us instead new elements of the picturesque in both design and color.

The building at 23–25 East 51st Street, just completed, is an example of what may be accomplished in the way of such an alteration. One of the outstanding features of New York architecture has been the lack of color contrast, and still the atmospheric condition is one that lends itself readily to a more colorful play on the façades of this city. Carrying this idea to a practical and material end, color has been incorporated on this façade in a pink stucco finish, mottled to show a decided weathering. The application of additional color was made by way of an ornamental fresco applied in the arched cornices and in the lunettes over the two lower windows on the main floor. This color work was applied after the manner of the old Italian method—put on when the stucco on the surface of the finished wall was still in a wet state. The same method of color application was carried out throughout the interior, and it gives a warmth obtained in no other manner. It is especially effective where rough-textured plaster walls predominate throughout an interior.

The building is designed to be a combination tea-room and studio apartment, with the tea-room arranged so as to make an eating-place for the occupants of the building. Panels on the walls of both tea-rooms are allegorical in design and of a color combination that gives a tapestry suggestion.

The front tea-room contains three panels, and the rear tea-room is decorated with three lunettes set in a recessed wall, the Italian landscape idea being carried out in the mediæval character suggested by the main façade.

The building is seven stories in height, with two elevators, answering the requirements of the occupants of the studio apartments in the above floors. These apartments contain a large living-room, with bedroom and bath, and also an honest working fireplace.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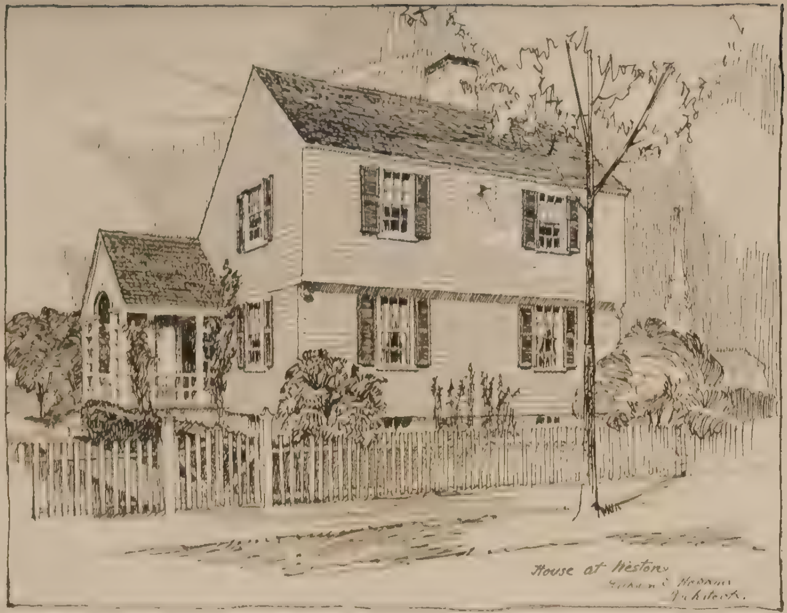
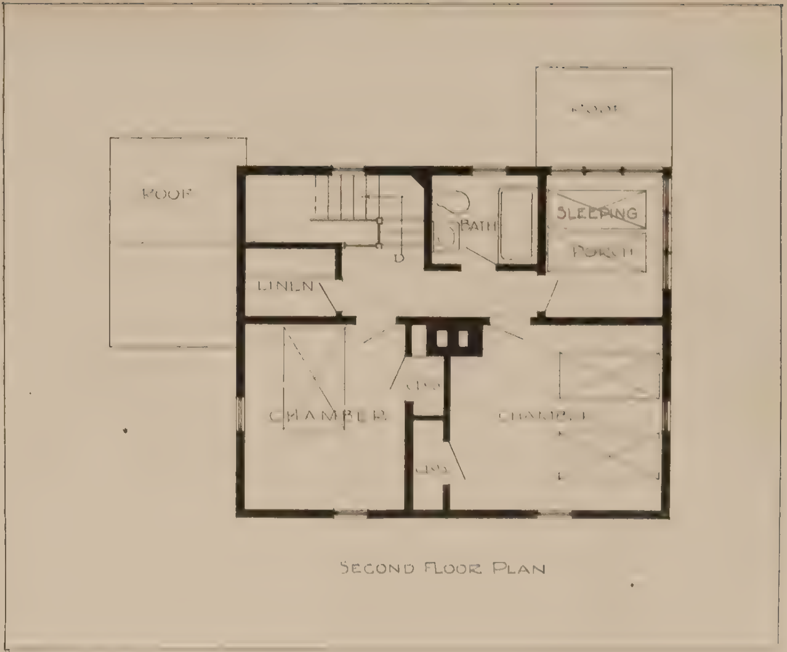
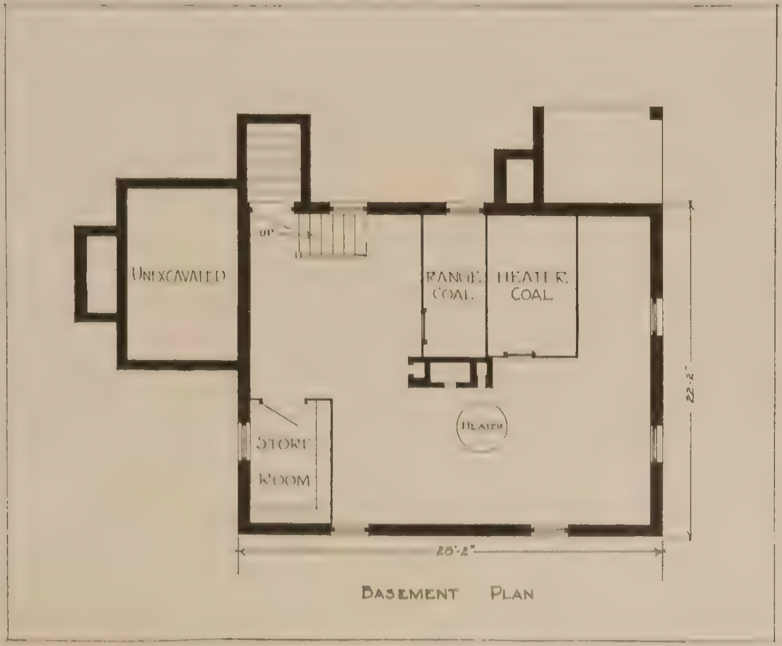
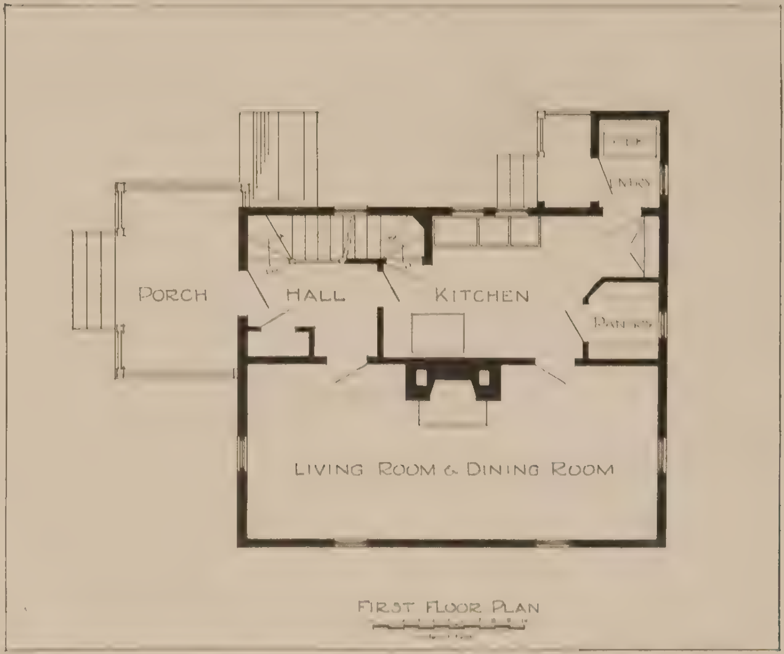




SECOND FLOOR PLAN



BASEMENT PLAN



FIRST FLOOR PLAN

HOUSE, MR. THOMPSON STONE, WESTON, MASS. Kilham & Hopkins, Architects.

The cost of this house, including a one car garage but not including the architect's regular commission, was $7,335. The house was built last summer at cost plus a fixed sum, the contractor finishing the work at substantially the amount of his original estimate.

Construction of the Small House

By H. Vandervoort Walsh

Instructor in Architecture, Columbia University

Article XX

METHODS OF HEATING

System Adapted to the Small House

THE heating problem for the small house was for our ancestors a very simple mechanical device, consisting, as we all know, of either the fireplace or the stove. The former method still has a charm which we are not willing to dispense with, although we do not depend upon its efficiency to do the actual work of warming, but install some more complicated system, such as a steam-heating plant, to perform the practical work. A fireplace has a sentimental and intellectual warmth that no radiator can supply.

Even the stove has a certain fascination for many, recalling cold wintry nights when the family sat about the red-hot casting, the women knitting and the men burning their shoe-leather and smoking. Some advocates of the stove are so energetic in their arguments concerning the efficiency of this method of heating, that one almost doubts the defects which lead inventors to manufacture other devices. But the housewife knows the labor of shovelling coal into three or four stoves, knows the great clouds of hot, fine ashes which rise into the atmosphere and settle upon the shelves, the tops of picture-frames, and the polished surface of the piano.

And the inventor saw the tired, worn look of the housewife, removed the stove to the cellar, installed tin pipes from this central heater to the various rooms, and then waited for applause and purchasers. It seemed so simple, but it did not solve the problem entirely, for when the wind blew from the north into the windows, it pressed out the warm air from the exposed rooms, forced it down the pipes up through which it was supposed to come, and then rushed it up the flues on the south or warm side of the house, overheating this part and leaving the cold rooms of the house unheated. The drum of the furnace over which the air passed to receive its warmth from the burning coal would leak every time fresh fuel was added, for the odor of coal-gas became very evident throughout the house. Moreover, the heat was very dry and unpleasant, so that water-jars had to be set about to moisten the air.

Then came the inventor again with a new device, a steam-boiler, pipes to distribute the steam, and radiators to give off the steam to the room. Here at last was a method of heating which would supply warmth in the cold parts of the house, even under the windows, through which the chilliest air penetrated. But the sizes of the radiators were calculated to heat the house to 70 degrees when it was zero outside, although the average winter day was much warmer than this. In this way the occupants of the house were cooked with an excess of heat during moderate weather, for there was no way to regulate the amount of heat given off from the radiator; it either was filled with steam, giving off its maximum quantity of heat, or else it was empty and cold.

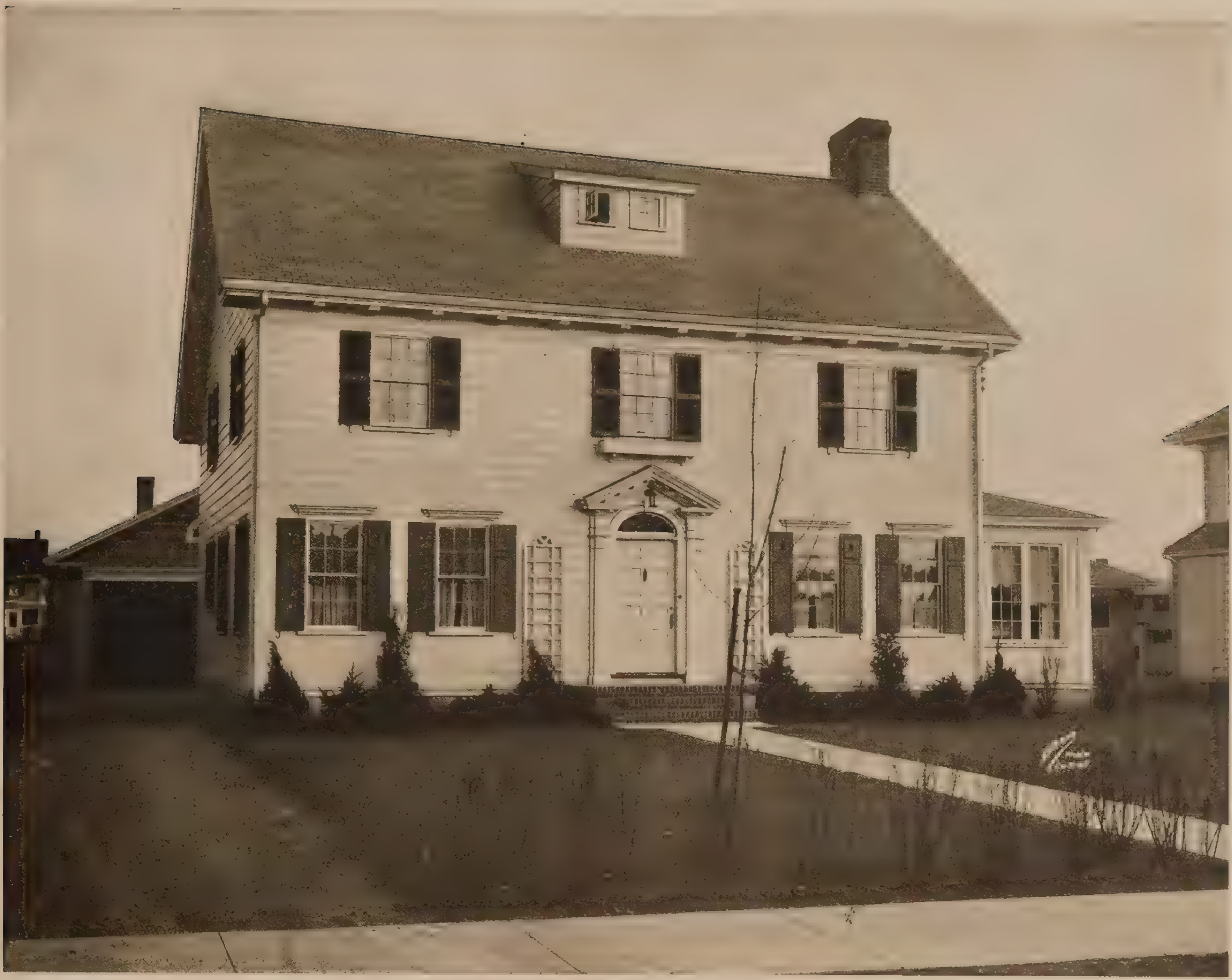
To meet this difficulty presented by the steam-heated radiator, the hot-water system was developed. Instead of distributing heat with the medium of steam which under low pressure was fixed at one temperature, heat was circulated by hot water from the central boiler. The temperature of this water could be regulated for mild weather by lowering the fire. However, since the hottest water was cooler than steam, it required larger radiators and more piping, so that the initial cost of a hot-water plant was more than that of a steam system.

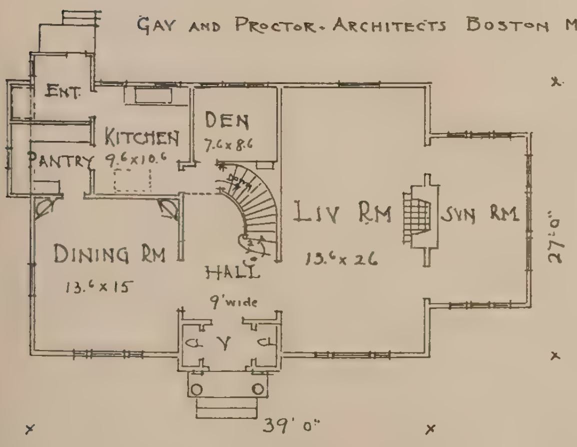
In order to overcome the disadvantages of the inflexible steam-radiator, inventors finally developed the so-called "vapor-vacuum" system of steam-heating. In this equipment the air was driven from the entire length of pipes and from the radiators by the pressure of the rising steam from the boiler, and forced through a special ejector which closed when the steam came in contact with it, preventing the return of air into the interior. Thus when the pipes and radiators were filled with steam (there being no air left), no pressure was set up to resist the circulation of the water vapor, and when the hot steam condensed in a radiator to a thimbleful of water, more steam was drawn in to take its place, for no air could enter the pipes. In this way the quantity of steam delivered to the radiators could be regulated by a special valve with a varying number of ports, and by turning the valve to a certain position enough steam would be permitted to enter the radiator to keep it half full, or by shifting the valve to another point enough steam would enter to fill the radiator to three-quarters of its capacity. In fact, the requisite amount of steam could be admitted to the radiator to balance the speed of condensation and retain whatever level of steam in it was desirable. Thus the steam system became at once a flexible system of heating, and could meet the changing requirements of the weather.

A further development of the hot-water system then came about. In this device the radiators were made to contain water, but the heat was circulated through the pipes by means of steam. This steam was poured over the surface of the water in the radiator and transferred its heat to it. According to the quantity of steam poured over the water, the latter could be heated to various temperatures. Of course the water in the radiator was the medium for distributing the heat outward from the radiator itself.

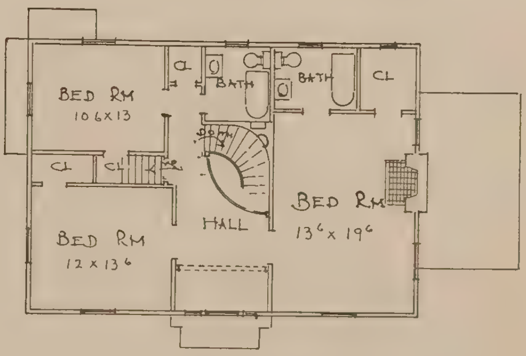
Still another improvement was made upon the hot-water system by introducing the principle of the closed expansion tank. In the ordinary system the water is allowed to expand at the top through an expansion tank, so that the actual pressure on the water of the system is atmospheric. Under this pressure the temperature of the water cannot be raised to more than 212 degrees Fahrenheit, for beyond this it boils and changes to steam. However, in the closed-tank system a so-called heat-generator is added on the line leading to the expansion tank which, by means of a column of mercury, is capable of adding 10 pounds more pressure than the atmosphere to the water in the system,

(*Continued on page* 194.)





FIRST · FLOOR



SECOND FLOOR

HOUSE, J. M. PRINGLE, WINCHESTER, MASS. Gay & Proctor, Architects.

(*Continued from page* 192.)

and thus raising the boiling-point to about 240 degrees. This generator is so designed, however, that, although it adds this greater pressure to the water, yet the natural expansion of the water in the system is permitted through it in case of emergency. By permitting the raising of the temperature of the water, the size of radiators can be cut down 50 per cent, which, of course, reduces the quantity of water needed and permits a quicker heating of the system when the fire is started. Thus a saving of fuel is accomplished and the disadvantage of the ordinary hot-water system is eliminated; namely, the long time required to get hot water in the radiators after the fire is started in the morning from its banked condition of the previous night.

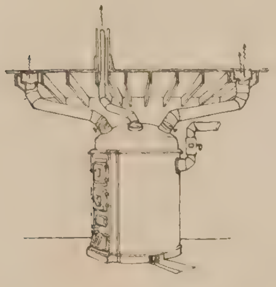
However, the genius of the inventor was not at rest on the problem of warm-air heating, for he discovered that what he needed in this system was to abolish the flues, which he once thought were essential, and use but one register and one flue. This is called the pipeless furnace. A register is employed which has an outer and inner section. The outer section permits the cold air from the house to pass down through it and over the drum of the furnace. The inner section of the register permits this hot air to escape upward and through the house by natural distribution. Thus the hot air rises from, and the cool air settles back into, the furnace without utilizing flues. The circulation of this system was found to be superior to the older method and very much cheaper to install. In fact, it is the cheapest of all systems of heating. It is especially adapted to the small, low-cost house.

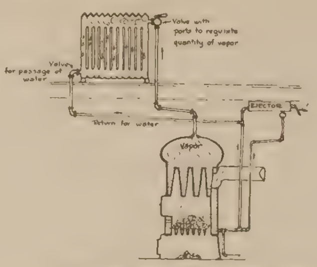
To reduce the cost of hot-water heating, and make it also available for this class of small house, the manufacturers produced another type of water heating-plant. In this device the water-heater was installed in one of the rooms of the house, like a stove, but the exterior was designed to serve as a hot-water radiator for the room in which it was placed. From this heater, pipes were taken off to distribute heat to other radiators, located in adjoining rooms. The principle remains the same as the former system; the only difference lies in the reduction of cost by eliminating the boiler from the cellar and utilizing it to heat the room in which it was placed.

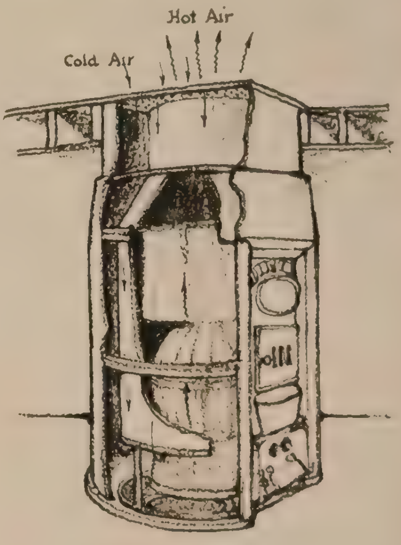
Other attempts to improve the mechanics of heating have been more along the line of perfecting the operation of valves or the utilization of other fuels than coal. Gas-radiators have been tried, but they are so expensive to operate in most parts of the country that they are hardly suited to the needs of the small house, and many designs caused so much water of condensation upon the walls, due to the burning of the gas, that the decorations were ruined. Electric heaters, too, are not within the pocketbook of the average person owning the small house. Fuel oil-burners also have been devised to take the place of the coal-grate. Wherever oil is cheap enough to permit their use, they are great labor-savers, since they eliminate all the shovelling of coal and handling of ashes.

Briefly, then, the available systems for the heating of the small house are:

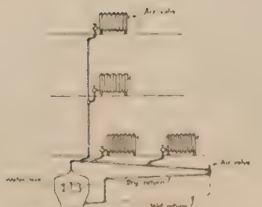
(*Continued on page* 196.)


Warm Air Furnace with Pipes

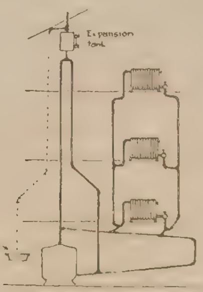

Valve with ports to regulate quantity of vapor
Valves for passage of water
EJECTOR
Return for water
Vapor
Simplified diagram of Vapor-vacuum system



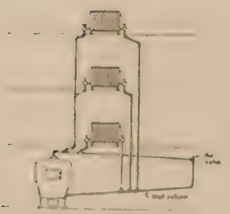
Pipeless Furnace



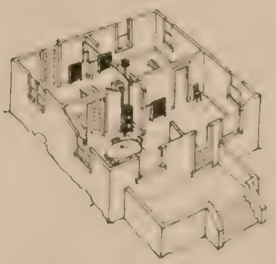
Steam Heat — One-pipe

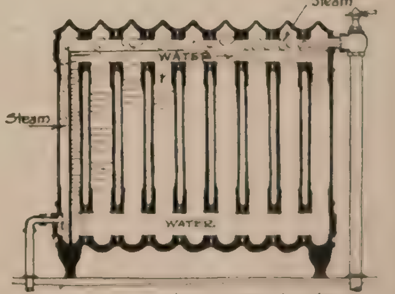


Hot Water Heating

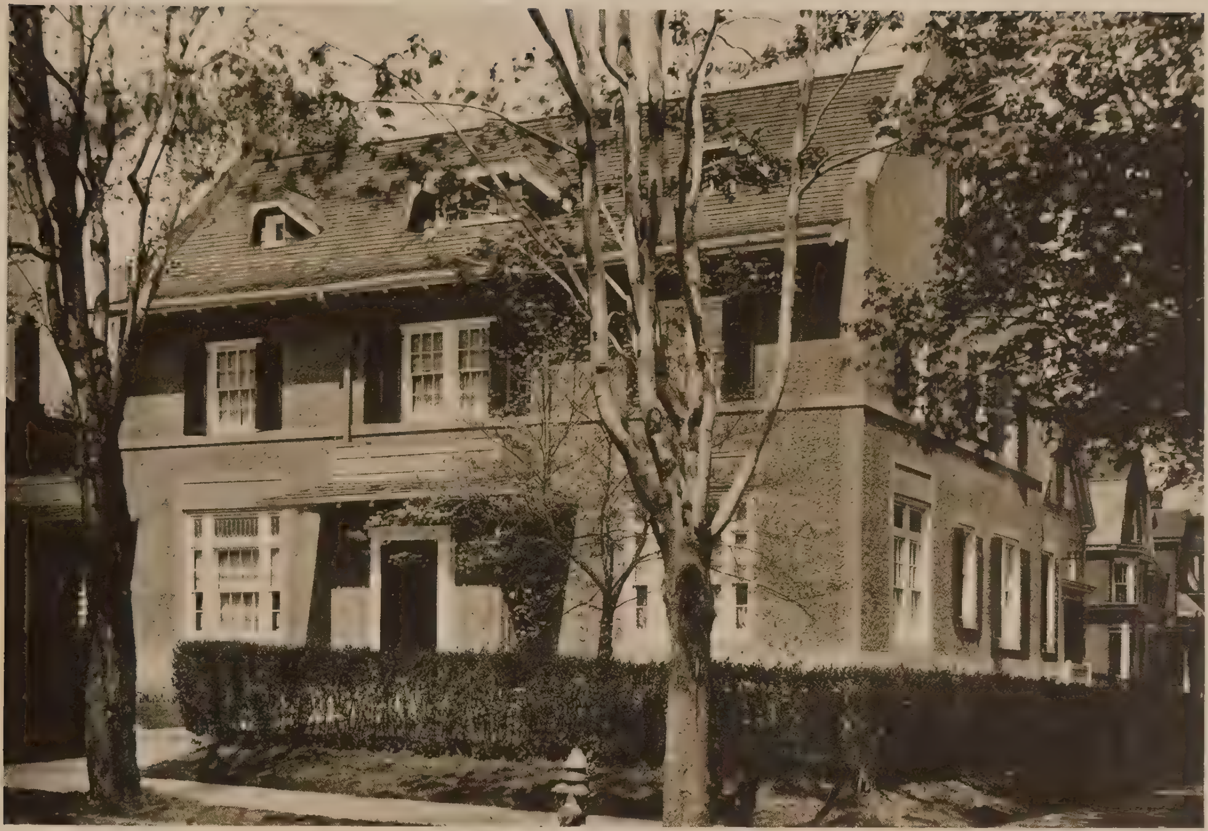


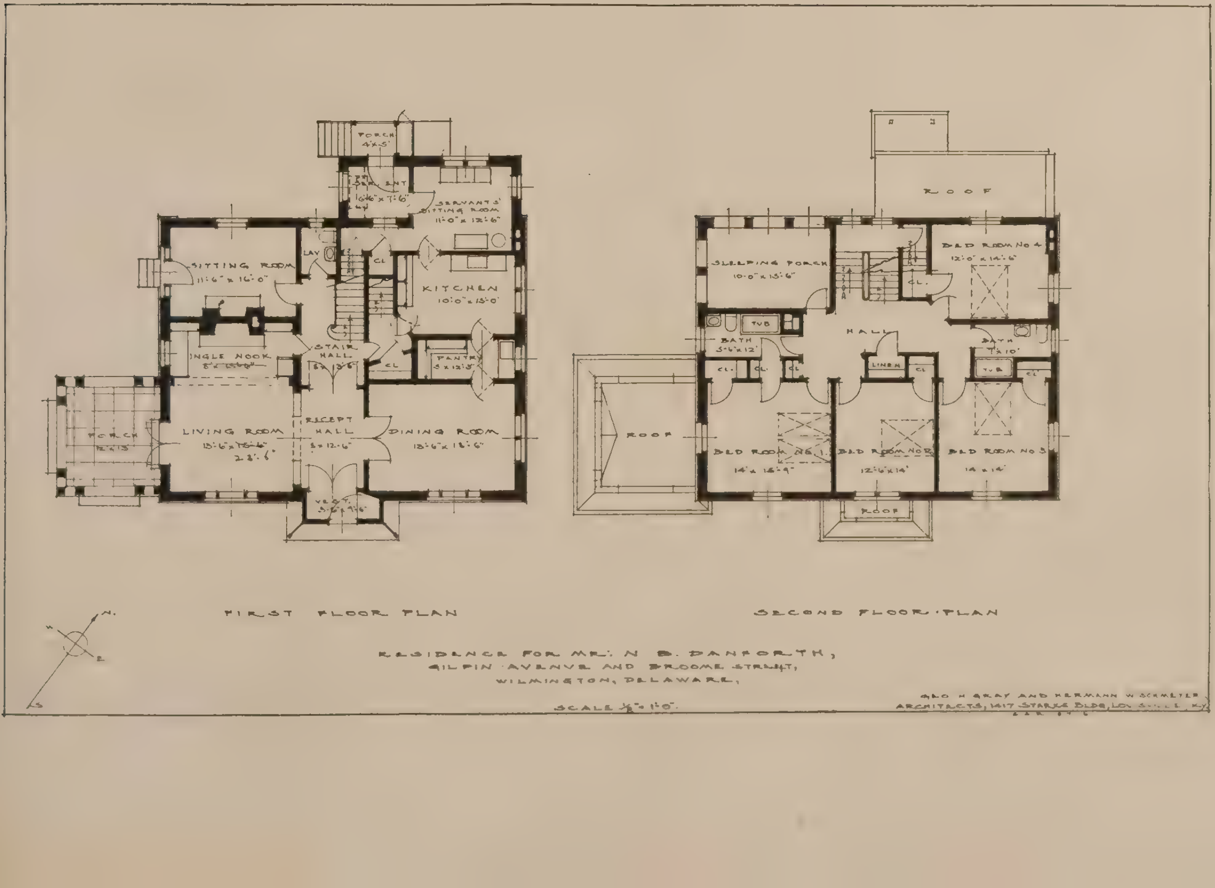
Steam Heat — Two-pipes


Hot Water Heating — Boiler in Dining Room



Hot water radiator heated by steam




PORCH 4'x5'
SERVANT 6'6"x7'6"
SERVANTS' SITTING ROOM 11'0" x 12'6"
SITTING ROOM 11'6" x 16'0"
LAV
CL
KITCHEN 10'0" x 15'0"
INGLE NOOK
STAIR HALL 8' x 13'6"
PANTRY 5 x 12'5"
CL
PORCH 12'x15'
LIVING ROOM 13'6" x 15'6" 23'6"
RECEPT HALL 8 x 12'6"
DINING ROOM 13'6" x 13'6"
VEST. 3'6" x 9'6"
FIRST FLOOR PLAN
ROOF
SLEEPING PORCH 10'0" x 15'6"
BED ROOM NO 4 12'0" x 14'6"
CL.
TUB
BATH 5'6" x 12'
HALL
BATH 7' x 10'
TUB
LINEN
CL.
CL.
CL.
CL
CL
ROOF
BED ROOM NO 1 14' x 16'9"
BED ROOM NO 2 12'6" x 14'
BED ROOM NO 3 14 x 14'
ROOF
SECOND FLOOR PLAN
N.
W
E
S
RESIDENCE FOR MR. N B. DANFORTH,
GILPIN AVENUE AND BROOME STREET,
WILMINGTON, DELAWARE.
SCALE 1/8" = 1'-0".
GEO. H. GRAY AND HERMANN W. SCHMELTER
ARCHITECTS, 1417 STARKS BLDG, LOUISVILLE, KY.

(*Continued from page* 194.)

Hot-air—a. Furnace with flues.
  b. Furnace without flues.
Steam—a. Ordinary gravity system.
    One-pipe.
    Two-pipe.
  b. Vapor-vacuum system.
Hot-water—a. Ordinary open-tank system.
    One-pipe.
    Two-pipe.
  b. Closed-tank system.
  c. Special open-tank system with boiler used as radiator.
  d. Patent system using water in radiators but steam for circulation.

METHODS EMPLOYED IN CALCULATING THE REQUIRED SIZE OF HEATER

The basis of calculating the required size of any one of the systems previously mentioned is to assume that a certain temperature of heat is to be maintained when the weather is zero, and then by means of the laws of heat transmission estimate the quantity of heat lost per hour from the house. The amount of heat lost per hour is, of course, the quantity which the heating system must supply. Knowing this, a system is installed which is capable of supplying this heat loss.

In such devices as the warm-air furnace the required size can be computed directly to meet the heat loss, but where radiators are used the required sizes of these must first be determined to offset the losses from the rooms in which they are installed, and then the size of the heater must be estimated to supply sufficient heat to the radiators and to make up for the losses of heat through the distributing-pipes.

The usual temperature to which the small house is heated when it is zero outside is 70 degrees Fahrenheit. It is then assumed that a certain quantity of heat is lost through the walls of the house by radiation and convection and conduction, and another quantity lost by the leakage of warm air out through the window-cracks. (The quantity of heat is measured in British thermal units, called B. T. U.'s.)

To understand the manner by which heat is lost through the exterior walls, it is necessary to know the meaning of radiation, convection, and conduction.

By standing before an open fire the heat given off by radiation can be observed by shutting it off with a piece of paper held between the face and the fire. This is the transmission of the heat through the ether, and is similar to the transmission of light, since this heat will pass through glass, like light.

Convection of heat is illustrated by heating air in one place and transferring that air to another place, where it will give up its heat to surrounding bodies.

Conduction of heat is illustrated by heating the end of an iron rod and noticing that the heat will eventually be transmitted along the length of it to the other end.

The heat within a house escapes from the interior to the colder atmosphere of the exterior through the walls by radiation, through the glass windows and the substance of the walls by the convection action of the warm air of the interior giving up its heat to the interior face of the wall and the cold air of the exterior extracting this heat from the exterior face and carrying it off, and also by the action of conduction of the materials of which the wall is composed.

The quantity of heat lost is measured by the number of B. T. U.'s lost through one square foot of the wall each hour. As the window-glass loses heat through it more quickly than the wall, it is necessary to calculate this separately. The process, then, for estimating the heat loss from a room is as follows:

1. Estimate the number of square feet of exposed wall surface in the room, including windows.
2. Subtract from the above the area of the windows to find the net wall area.
3. Multiply this net wall area by the number of B. T. U.'s which the wall loses per square foot of surface for each hour.

These factors are given in the following table:

Type of wall	Zero outside and 70 degrees inside Number of B. T. U.'s lost for each square foot of wall surface each hour
Brick wall, furred and plastered:	
8″ thick	16.1
12″ thick	14.0
Frame wall, sheathed, clapboarded, and plastered	19.6 (with building-paper use 16.1)
Hollow-tile wall and concrete and stone have factors about the same as for the furred brick wall	

4. Add to this the number of B. T. U.'s lost per hour through the windows. This is determined by multiplying the area of the windows by the heat loss in B. T. U.'s per hour for each square foot of window, which is 78.8 for single windows, and where storm-windows are added it is 31.5 B. T. U.'s.
5. This total sum is the number of B. T. U.'s lost through walls and windows for each hour.
6. To this must be added the heat lost by leakage through the window-cracks. This is secured by measuring the length of window-cracks on the side which has the greatest length of crack and multiplying this by 168, or the number of B. T. U.'s lost each hour for each linear foot of window-crack. For very tight windows reduce above to 84.
7. The total of all the above gives the number of B. T. U.'s lost each hour from the room when the outside temperature is zero and the inside is 70 degrees Fahrenheit.

Knowing the quantity of heat lost per hour, a radiator must be installed which will supply this amount per hour. As the average steam-radiator supplies about 250 B. T. U.'s per hour from each square foot of its surface, the number of square feet required for a radiator to be installed in the room can be found by dividing 250 into the number of B. T. U.'s which were found to be lost from the room each hour.

A hot-water radiator gives off about 150 B. T. U.'s per hour for each square foot of surface, so that the radiator is generally nearly twice as large as the steam-radiator.

Knowing the required number of feet of radiation for the radiator, the proper size can be selected from the manufacturer's catalogue.

By lumping the total number of square feet of radiation for all the radiators throughout the house together and adding 35 per cent to this to make up for loss through pipes and underrating of boilers, the size of the boiler can be selected from the catalogue to fit this need.

To estimate the size of a warm-air furnace, the total quantity of heat lost from all the rooms of the house should be calculated in the same way, and then 25 per cent added to allow for cold attics and exposure. This quantity should then be multiplied by 2.4 and divided by 8,000 to find the number of pounds of coal which will be required to be burned per hour. By dividing this amount by 5, the grate area of the required furnace can be found, and the correct size selected from the manufacturer's catalogue.

Concrete Construction

By DeWitt Clinton Pond, M.A.

SIXTH ARTICLE

IN the last article the design of the interior footings of the partial plan of the 395 Hudson Street Building was investigated, and it was found that the methods outlined in previous articles were used in the actual design of these footings which now form the foundations in place under the columns of the largest reinforced-concrete building on Manhattan Island.

The foundations under the exterior columns are known as continuous footings, and, although many of the considerations involved in their design have been discussed in other articles, there has been no investigation of exactly this type of foundation. The first difference between the design of an exterior footing and an interior one is that the dimensions of the first type are limited by the building-line. In New York, at a distance 8 feet below the sidewalk, the designer is permitted to have his exterior footing project 1 foot beyond the building-line, although no projection is allowed beyond an interior lot-line. As the building under consideration covers an entire city block, there are no interior lot-lines bounding the plot, and this simplifies the footing design to a certain extent.

All exterior columns were kept back 5 inches from the building-line, as the building was designed with a brick-and-stone treatment of the façades. The allowance was made so that there could be a brick finish over the columns and also to allow for any inequalities in the concrete. The exterior footings could therefore project 1 foot 5 inches beyond the face of the column along the building-line.

Another limit to the dimensions of an exterior footing is set by the actual spacing of the columns on centres. In the present case all columns, except those in the corner bays, are spaced 20 feet on centres in both directions. The length of each footing can be no more than 20 feet. With these conditions understood there can be little misunderstanding of the following calculations:

In designing footings of the type under consideration it is customary to combine the design of several at a time if the loads are approximately alike. Columns 9, 10, and 11 carry about the same loads, and an average load of 987,000 pounds will be taken as applying to the design of all three. The weight of the footing, under each column, will be taken as 90,000 pounds, making a total load on the soil of 1,077,000 pounds. The soil will carry 8,000 pounds per square foot, and the area of soil to be covered is 134.6 square feet.

The footing can be no more than 20 feet long, so the width must be 6 feet 8 inches. The actual area will be 133.3 square feet, slightly less than that given above. The upward pressure of the soil, which will cause shear and bending in the footing—disregarding the weight of the footing itself—will be 987,000 ÷ 133.3 = 7,404 pounds per square foot.

A consideration which might be noted in passing is that the width of the column in the basement story is determined by the width of the footing. In order to have the centre line of the column coincide with the centre line of the footing the inside face of the column is set back from the edge of the footing the same distance as the outside face. It was found that the outside face was 1 foot 5 inches back of the outside edge of the footing, so the inside face will set back this same amount, or, in other words, the width of the column will be 2 feet 10 inches less than the width of the footing. This will make the column thickness 3 feet 10 inches in the basement story. As the width of the column, measured along the building-line, is determined by architectural considerations and is 3 feet 10 inches, this makes the basement section of the column square, measuring 3 feet 10 inches in both directions. This section will carry more than the load imposed upon it, but will be concentric with the footing. The sections above the basement section will tend to produce eccentric loading upon the footing. For this reason the column must be "hooked in" at the first floor, and the method of doing this will be explained when the first-floor construction is designed.

It has been determined above that the upward unit pressure of the soil is 7,404 pounds per square foot. The columns are 20 feet on centres and all—except the corner column, number 12—measure 3 feet 10 inches along the building-line, leaving 16 feet 2 inches in the clear between them. In designing the footing this clear span between the columns will be treated as if it were a beam.

In the case of the interior column footings, the design of which was investigated in the last article, the depth was determined by the punching shear. In the present case the depth should be found on the basis of compression in the lower portion of the footing, and as this compression is due directly to the moment, this must be determined first.

The load on the clear span is found by multiplying the span by the width and by the unit load. 16.17 × 6.67 × 7,400 = 798,000 pounds. The condition of loading of the footing is shown in Fig. XIII, and it will be noted that the load does not extend over the entire span of 20 feet but only over the clear span of 16.17 feet. This is not exactly correct, but is so close to being correct that it is the method used in practical design. The method of obtaining the moment is by finding the downward moment due to the pressure at the column and subtracting from this the upward moment due to the pressure of the soil.

The downward moment will equal 399,000 × 10 = 3,990,000 foot-pounds.

The upward moment will equal 399,000 × 4.04 = 1,611,960 foot-pounds.

The total moment will equal the difference between these two, or 2,378,000 foot-pounds.

The footing, being a continuous footing, will act as a continuous beam, and the moment in a beam of this type is two-thirds of that for a simple beam. In order to reduce the above moment to inch-pounds and to the proper moment for a continuous beam it will be necessary to multiply by 12 and by $\frac{2}{3}$. The proper moment in inch-pounds will be 19,024,000 inch-pounds.

The next step is to find the depth. By referring to a previous article in the October, 1916, number of ARCHITECTURE the reader will see how this method was applied to the design of a square footing. The same method applies to a continuous one.

The stress in the steel for a beam 1 foot wide equals $1{,}462.5 \times d$. Also M equals the stress in the steel—S—multiplied by $\frac{7}{8} \times d$.

In order to use the above equations it will be necessary to find the moment for each foot in the width of the footing. 19,024,000 divided by 6.67 will equal 2,852,000 inch-pounds.

$$M = S \times \tfrac{7}{8} \times d.$$
$$2{,}852{,}000 = 1{,}462.5 \times d \times \tfrac{7}{8} \times d.$$
$$d^2 = (2{,}852{,}000 \times 8) \div (1{,}462.5 \times 7).$$
$$d^2 = 2{,}230.$$
$$d = 47.5 \text{ inches.}$$

In order to be sure that this depth will be great enough to resist punching shear it will only be necessary to use the methods outlined in the last article. It will be found that in this case the moment determines the depth of the footing rather than the shear.

The next step will be the determination of the steel in the footing. The total moment has been found to be 19,024,000 inch-pounds. By multiplying this by 8 and dividing by 7 and 47.5 the total stress in the steel will be found to be 457,000 pounds. By dividing this by 16,000 pounds it will be found that 29 square inches of steel will be required and that this area can be made up out of nineteen 1¼-inch bars.

Before designing the stirrups for the above condition the design of part of the footing between columns 11 and 12 will be investigated. By referring to the detail of the continuous footing (Fig. XIV) it will be noted that the distance from the centre line of column 11 to the end of the footing is 21 feet 1⅞ inches. The footing splays out at the end on account of the need of covering a proper number of square feet of soil. The load brought to the footing by column 12 is 781,000 pounds and the load of column 11 is 976,000 pounds, and one-half of this will be carried on the part of footing under consideration. If the weight of the footing itself is taken as 105,000 pounds, the total weight upon the soil will be 488,000 + 781,000 + 105,000 = 1,354,000 pounds. As the soil is four-ton—8,000 pounds—soil, the area to be covered must be 171.7 square feet. As stated above, the length is 21.16 feet, and the average width of the trapezoid will be 171.7 ÷ 21.16 = 8.1 feet, or 8 feet 1 inch. If the width at column 11 is 6 feet 8 inches, the width at the outer edge must be 9 feet 6 inches in order to have the average width as given above.

The footing is trapezoidal and column 12 sets back 5 inches from the building-line, and its centre line is 2 feet 5 inches back of the edge of the footing, as the column is 2 feet thick. By allowing 1 foot 5 inches from the oblique edge of the footing to the edge of the column at the centre line it will be found that the column will measure along the face of the building 6 feet 4 inches, and that its centre line will be directly over that of the footing at that point.

This is another case in which the dimensions of the basement section of a column are determined by the footing.

There are two methods of attacking the problem of designing the trapezoidal end of the continuous footing. The first is to treat it as a rectangular footing having a width of 8 feet 1 inch and loaded uniformly between the supports. The other is to treat it in accordance with the actual condition of loading and the trapezoidal shape. The last-mentioned method will take considerable time, and in some cases, when the excavation work has been completed and the field force is calling for plans, time is not always available. However, this method is more accurate and should be employed when possible.

The load per square foot of the upward pressure of the soil is found by adding the two column loads and dividing by the area. 488,000 + 781,000 = 1,269,000. 1,269,000 ÷ 171 = 7,420 pounds. The clear span between columns is 15 feet 10 inches, and the area is a trapezoid having the shorter side 6 feet 11 inches long and the longer of the two parallel sides 9 feet long. The area is obtained by multiplying the average width—7 feet 11½ inches—by the clear span, and if this is multiplied by the unit upward pressure of the soil the force tending to produce bending will be obtained. 7.95 × 15.83 × 7,420 = 934,000 pounds.

Fig. XV shows the above conditions.

The centre of gravity of the trapezoid between the two columns is 8.28 feet from the shorter side, and as this side is 1.92 feet from the centre line of column 11, the distance from this line to the centre of the trapezoid is 10.2 feet. The right reaction will be found by the following calculations:

$$(934{,}000 \times 10.2) \div 18.75 = 508{,}000.$$

The reaction at the centre of column 11 can be found by subtracting this from the total load:

$$934{,}000 - 508{,}000 = 426{,}000 \text{ pounds.}$$

The next step is to find the point of no shear, or the point of maximum bending moment. This is usually done by trial, but it can be determined by carefully drawing a shear diagram and measuring the distance to the point at which the shear becomes zero. Such a diagram is shown in Fig. XVI. It will be noted that the shear changes as a curved line. From this it can be found that the point of maximum bending is 7 feet 9 inches from the edge of column 11. At this point the footing is 7 feet 11 inches wide. The trapezoid included between the edge of the column and the point of no shear has an area of 57.4 square feet, and the upward pressure of the soil upon it will be 426,000 pounds, which equals the reaction at column 11. The centre of gravity of this trapezoid is 3.78 feet from the zero point, and the maximum bending moment—taken around this point—will be found to be 2,504,000 foot-pounds, or 30,048,000 inch-pounds. This part of the footing will act as a semicontinuous beam, and this moment must be reduced by one-fifth to have it equal the actual moment, and, if this is multiplied by eight-sevenths and divided by the depth, the stress in the steel will be found.

$$30{,}048{,}000 \times \tfrac{4}{5} \times \tfrac{8}{7} \times \tfrac{1}{47.5} = S = 578{,}000 \text{ pounds.}$$
$$587{,}000 \div 16{,}000 = 36 \text{ square inches.}$$
$$36 \div 1.5625 = 23 - 1\tfrac{1}{4}\text{-inch-square bars.}$$

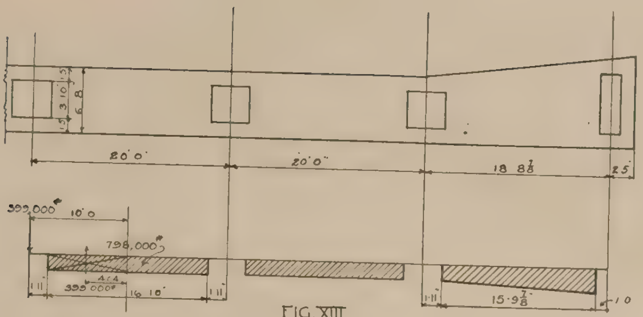


FIG. XIII

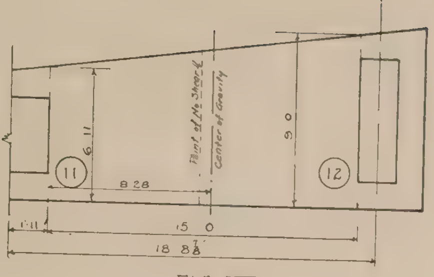


FIG XV

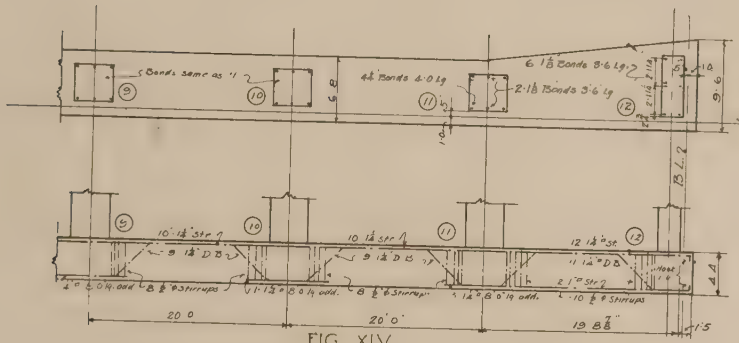


FIG. XIV

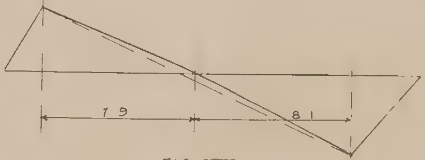


FIG XVI

The above design was carried out on the basis of designing a trapezoidal footing in the accepted manner. The same design could have been carried out by considering the footing as rectangular, having a width of 8 feet 1 inch. Although the reactions in this case would be different, and the point of maximum bending moment would be in a different position, the result obtained by the second method would be very nearly the same as the one already obtained. This second method is much more simple than the trapezoidal footing design.

It will be noted that the stress in the steel was found to be 578,000 pounds. The depth of 47.5 inches was determined on a basis which produced a stress of 457,000 pounds as determined for the part of the footing under columns 9, 10, and 11. If this stress was produced in the steel it would also be produced approximately in the concrete, and the stress of 578,000 pounds might overstress the concrete. To determine if this is the case it is only necessary to multiply the depth in inches and breadth in feet by 1,462.5.

$$47.5 \times 8.1 \times 1{,}462.5 = 562{,}000 \text{ pounds.}$$

If this is the allowable stress in the concrete, it is obvious that it is overstressed 578,000 − 562,000 = 16,000 pounds. The distance from the bottom of the footing to the neutral axis is $\frac{3}{8} \times 47.5 = 17.8$ inches. The steel will be placed $4\frac{1}{2}$ inches above the bottom, and the ratio between the modulus of elasticity of steel and that of concrete will be taken as 15.

$$\frac{13.3}{17.8} \times 15 \times 650 = 7{,}720 \text{ pounds per square inch.}$$

If the steel in compression can be stressed to 7,720 pounds per square inch, it will be necessary to add 2 square inches of steel in the bottom of the footing. This can be made up with two 1-inch square bars.

The next step is the design of the stirrups. Between columns 9 and 10, and also between columns 10 and 11, the upward pressure of the soil was found to be 798,000 and the shear at each column will be one-half of this, or 399,000 pounds. Seven-eighths of the area of the footing at these points is 3,325 square inches, and the shear per square inch is 120 pounds. If 40 pounds is allowed on the concrete, 80 pounds will have to be taken up by the steel. The clear span is 16.17 feet, or 194 inches, and the breadth is 80 inches, and with an average shear to be taken by the steel of 40 pounds the total shear will be (80 × 194 × 80 × 40) ÷ 120 = 414,000 pounds. The stirrups are made up of $\frac{1}{2}$-inch round steel, bent so that there will be four vertical legs, and each leg will have an area of .1963 square inches. Four legs will have a combined area of .7852 square inches, and will withstand a tensile stress of .7852 × 16,000 = 12,563 pounds. If the stirrups alone withstood the shear there would be needed 414,000 ÷ 12,563 = 33 stirrups.

It will be noted that the footing is treated as a continuous girder and that at least one-half of the steel is straight and the rest is double bent. In the case of the part of the footing under consideration there are 9 double-bent bars $1\frac{1}{4}$ inches square having a combined area of 1.5625 × 9 = 14.06 square inches. Seven-tenths of this is 9.84 square inches. If one stirrup has a sectional area of .7852 square inches, the bent-up steel will take the place of $12\frac{1}{2}$ stirrups at each end, or 25 in all, and there will be needed 8 stirrups.

The stirrups for the part of the footing between columns 11 and 12 are designed in a similar manner, and the reader may find it profitable to check the number called for.

In the next article the footings for the remaining columns in the partial plan will be investigated.

The New York Society of Architects

THE annual meeting and dinner of the New York Society of Architects took place at the Hotel Astor, Broadway and 44th Street, Manhattan, on Tuesday evening, May 17. The event was a notable one in the society's history.

The officers elected for the ensuing year were: James Riely Gordon, president; Adam E. Fischer, vice-president; Edward E. Loth, second vice-president; Frederick C. Zobel, secretary; Harry Holder, treasurer; Walter H. Volckening, financial secretary.

Mr. Holder's report showed the treasury to be in a highly satisfactory and steadily improving condition. A vote of thanks was passed to the Committee of the Year Book, which is generally recognized as one of the most valuable works of reference published in this country. The newly elected members were Theo. Engelhardt and James A. Boyle.

Mr. Robert H. Kohn, of the American Institute of Architects, addressed the meeting and gave a clear and logical analysis of the situation in the domain of building, as a whole; setting forth the utterly uncertain and almost chaotic conditions with which architects generally have to contend, both as to labor and material. The element of corruption and bad faith enters very largely into these conditions.

Fountain at Exhibition of Architectural League of New York. By the American Encaustic Tiling Co., Ltd.

Apartments at Flushing, Long Island

Andrew J. Thomas, Architect

THIS new apartment-house (see Plate LXXX) combines in unusual manner the advantages of the country with the ease and the convenience of city living. The apartments are the creation of Mr. Andrew J. Thomas, the architect, who has had long experience in garden and country apartments.

One will note the openness of the group, with its long frontage on three streets, occupying, as it does, only 31 per cent of the area of the lot. This arrangement furnishes abundance of light and air and cross-ventilation, and provides everywhere a beautiful outlook over the grounds. One may also notice that there are no long, dark corridors or other waste spaces. Most of the apartments have outside exposure on three sides, and corner rooms are frequent. Each entrance serves only six suites, a feature which adds to the privacy. The arrangement inside could not be improved on for comfort and attractiveness, and one may fairly assert that no country home could offer so much economy of space, and so much ease and convenience of housekeeping.

The rooms are large and are grouped well together, opening into one another easily and attractively, with here and there a glimpse outdoors. Nevertheless, the bedroom portion and service portions are separated from the rest, insuring absolute privacy. The entrance to each apartment is through an ample foyer into a large living-room with open fireplace, with the dining-room opening off, almost as large. In all this arrangement the architect has been careful to preserve plenty of wall space for the placing of furniture and of decorations, which is coming to be so much sought for in American homes.

The service arrangements of the plan will appear to the housewife to be a model of what modern ideas of efficient housekeeping can accomplish. The kitchens are perfectly arranged in every detail, even to pot and broom closets, for ease of operation. Everything is in the right place, with—a detail of great importance—enough table space. The bedrooms are large, well supplied with closets, and in the larger apartments there is a maid's room with a small bath, slightly apart, yet so planned that it may be used as a main bedroom, whenever convenient. The bathrooms are attractively tiled. The construction will be of the most substantial and enduring type, of a kind not usually found in suburban real estate.

The architecture of the apartments is in keeping with the old Long Island neighborhood, the streets lined with elms, an old church near by, and across the street the oldest house in Flushing—all the charm and flavor of a beautiful New England village. Only time can provide such a setting, and appropriate to it will be the long, low brick walls and white details of architecture, broken into projecting masses and sheltered courts, with a tall portico running between the gambrel-roofed pavilions, and the building setting well back from the line of the street and the foreground of greensward, amply planted with shrubbery and flowers in the old-time spirit. In this picture the apartments will recall an old American mansion, like Mount Vernon in the South, or else one of those famous old American inns, like the Greenbrier at White Sulphur Springs, Va., or the Wayside Inn at Sudbury, Mass.

New Jersey's State Building Programme

By Commissioner Burdette G. Lewis

NEW JERSEY has determined to place her State building construction work upon a much higher plane. The State is no longer content with the serious shortcomings of her building department, which has been handling from a million to a million and one-half dollars' worth of State building work per year, and would be called upon to handle at least twice this annual expenditure if the institutional construction bond bill passed by the last legislature and signed by the governor is finally approved by the voters at the next November election.

The inspections of the Joint Appropriations Committee during each of the past four or five years have revealed conditions of deterioration and faulty construction in State buildings erected or placed in use during the past five years which were shocking. These were found to be due to improper design, faulty construction, and false economy. There is scarcely a single one of these buildings in which the plaster is not coming off all over the interior, due to leaks, which are due to these causes.

The office of the State architect was seriously undermanned and the salary paid the State architect was not attractive.

The legislature has met this situation in the following ways:

(1) By abolishing the State Department of Architecture and by transferring its functions to the State Board of Control of Institutions and Agencies and to the State Board of Education; (2) by authorizing these boards to employ various kinds of experts to design and possibly to supervise especially difficult construction work; and (3) by authorizing the State Board of Control of Institutions and Agencies to appoint an Advisory Commission on Plans, Designs, and Construction, composed of not less than six nor more than fifteen residents of this State, two of whom shall be architects registered to practise in New Jersey, two of whom shall be well qualified engineers, and two members who shall be experienced builders. This Advisory Commission is to serve for two years without pay, but its members are to be paid their actual expenses incurred in the performance of their duties.

These results have been achieved through the joint efforts of the New Jersey Chapter of the American Institute of Architects, of the Boards of Managers and Boards of Trustees of the various institutions and State schools, of the members of the State House Commission, consisting of the governor, the State comptroller and State treasurer, of one of the leading newspapers of the State, of the members of the Legislative Joint Committee on Appropriations, and the leaders of both branches of the legislature who have strongly supported the recommendations of the State Department of Institutions and Agencies that it be freed from the necessity of having buildings for the wards of the State planned and erected by the inefficient State Department of Architecture.

Upon the recommendation of Commissioner Burdette G. Lewis, of the State Department of Institutions and Agencies, Mr. Alan B. Mills, of Madison, N. J., has been appointed director of the new Division of Architecture and Construction of the State Department of Institutions and Agencies. Mr. Mills was, at the time of his appointment, assistant construction manager of the George A. Fuller Company; is a registered architect and a civil engineer, holding a degree from the University of Pennsylvania, where two years of his college course was carried on in the mechanical engineering department. Mr. Mills has had wide experience as an architect and as a practical builder. He had full charge of the erection of the Statler Hotel in Cleveland, of the McAlpin Hotel in New York, and recently of the Munson Steamship Building in New York City. He is widely known throughout the East and brings much interest and enthusiasm to the work. Because of his wide experience and because of the opportunities in the building field, it is the confident hope of the State authorities that reputable firms may be persuaded to bid upon State work.

In order to achieve the desired results, the State Department of Institutions and Agencies relies to a considerable degree upon the splendid group of men who have already agreed to serve as members of the Advisory Commission on Plans, Designs, and Construction. Those who have already accepted appointments have for years been residents of this State and are well known throughout New Jersey and the United States. The members who have already accepted appointments are Colonel William A. Starrett, of Madison, N. J., first vice-president of the George A. Fuller Company, who was, during the war, in charge of all construction work for the engineering division of the United States army; J. Otis Post, of Morristown, N. J., member of the firm of George B. Post & Sons, well-known architects; John H. Lippincott, Jr., of Haddonfield, N. J., superintendent of construction for the Turner Construction Company; A. M. Reynolds, of Newark, N. J., chief engineer of the Essex County Park Commission; William O. Ludlow, of Madison, N. J., well-known architect of the firm of Ludlow & Peabody; James O. Betelle, of Newark, N. J., senior member of the firm of Guilbert & Betelle, architects; Walter E. Kidde, of Montclair, N. J., consulting engineer; and Leon Cubberley, architect, of Long Branch, N. J., chief of field supervision for Cross & Cross, architects, of 681 Fifth Avenue, New York City.

After a joint conference with the members of the State Board of Control of Institutions and Agencies at the Robert Treat Hotel, Newark, on May 16, 1921, the Advisory Commission held an organization meeting and selected Colonel William A. Starrett as its chairman, and Miss Agnes L. Mulrey, secretary of the State Board of Control, as secretary.

It was the consensus of opinion that the State Board should employ special architects and engineers to design, and in certain instances to supervise, the more difficult construction work of the State; that a complete map and plan of existing institutions should be made as soon as possible, and that a scheme should be laid out to guide the Boards of Managers, the State Board, and the legislature in determining upon appropriations and construction plans for various institutional buildings in the future; that the staff of the former State architect, which has been transferred to the State Department of Institutions and Agencies, should be utilized to the fullest extent in handling construction, repair, maintenance, and developmental work, and that studies be made of the most available materials and of the best designs for the various types of institutions and buildings for which the State has already made, or in the future may make, appropriations.

Announcements

Mr. F. E. Davidson, of the Illinois Society of Architects, on Advertising

Most architects, in addition to having other attributes, are human, and with the hope that this may reach the eyes of some of those who are so cheerfully misdirecting their energies in trying to reach and influence the architect I suggest that the way to appeal to him is to grant first of all that he is an intelligent being; second, that he has had professional training; third, that he knows the needs of his clients even better than the client himself; fourth, that he is honestly serving his client to the best of his knowledge and ability; fifth, that he is a student and must ever remain a student. Hence, he is always willing to be shown, and will give up hours of his precious time to investigate a new idea.

Advertisers should realize that architects read their professional journals, and that a carefully prepared, brief statement of fact appearing in the advertising columns of these journals is one of the surest methods of calling the attention of architects to new methods and materials.

—*From Judicious Advertising.*

There isn't a reader of this magazine who will not be glad to have a copy of Mr. Emile C. Perrot's paper-covered booklet, "The Groundwork of Architecture or the Study of How Architectural Styles Are Affected by Structural Engineering." It is a clear and interesting summary of the essentials in architectural history. The many illustrations are especially attractive.

Mr. George Grant Mason and Mr. George Simpson Eddy announce that on and after May 2, 1921, their address will be 2 Rector Street, New York.

George A. Bagge announces the opening of an office at 299 Madison Avenue for the practice of architecture under the firm name of George A. Bagge & Sons.

George Bain Cummings, B.Arch., R. A., A. I. A., announces that the firm of Lacey, Schenck & Cummings having been dissolved by the withdrawal of Sanford O. Lacey and himself, he will continue the practice of architecture under the name George Bain Cummings, Architect, with offices at 602–604 Security Mutual Building, Binghamton, N. Y.

Charles Wellford Leavitt, Civil and Landscape Engineer, announces the removal of his offices to 18 East 41st Street.

Leslie H. Allen, who has recently been with Fred T. Ley & Co., contractors, of Springfield, Mass., first as an industrial housing engineer and then as sales manager for New England territory, has joined the staff of the Portland Cement Association, 111 West Washington Street, Chicago, as assistant manager of the Cement Products Bureau. Prior to joining the Ley organization Mr. Allen was for twelve years with the Aberthaw Construction Company, of Boston.

The Cheney Brothers, the famous silk manufacturers, were awarded one of the medals in the Arts and Crafts Section at the recent Exhibition of the Architectural League.

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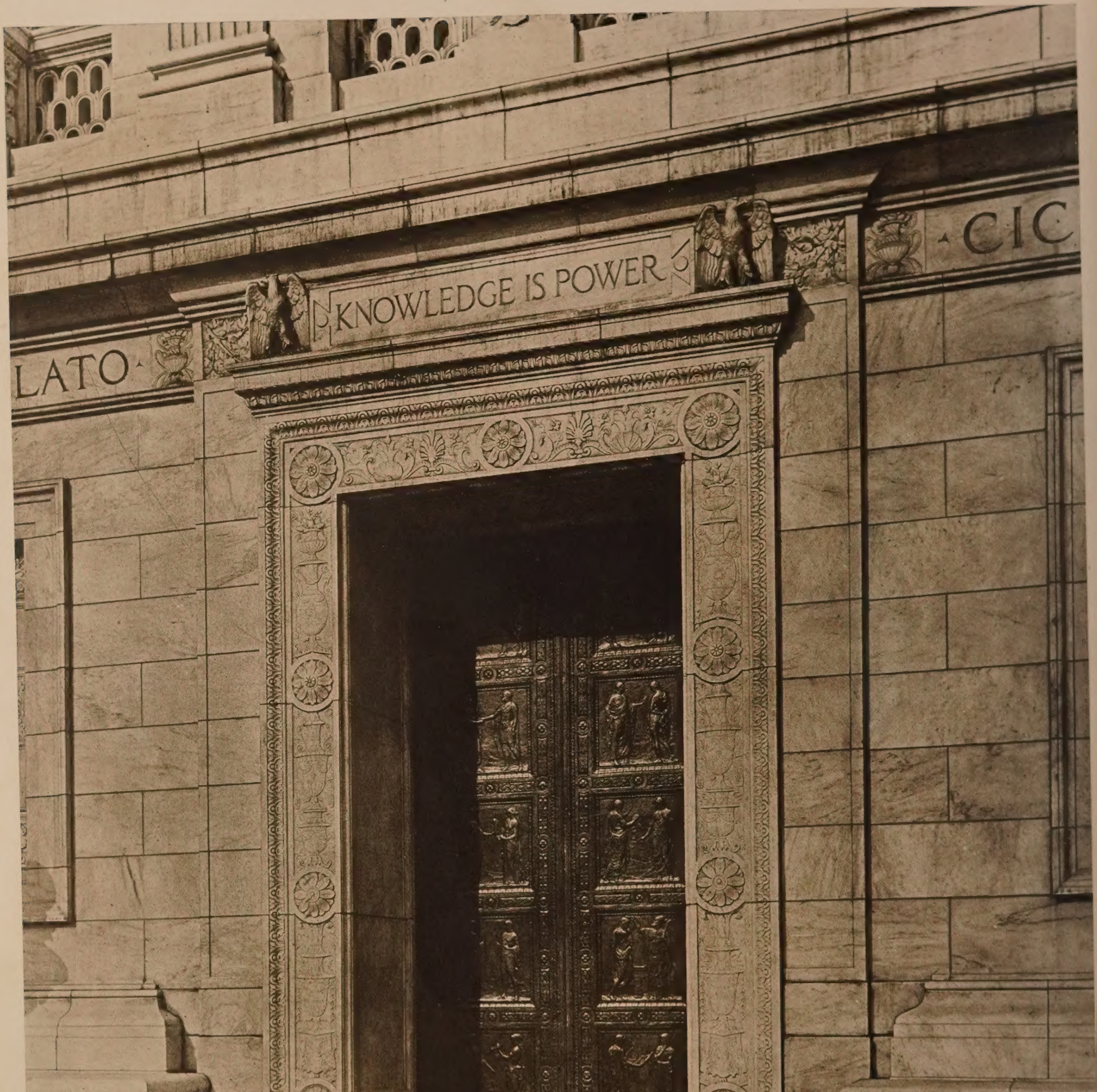

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